ORDER No. 00-SM-006

Service Manual

Colour Television

TX-21JT1F/TC-21JR1F

TX-14JT1F/TC-14JR1F

Z7 Chassis

SPECIFICATIONS

(Information in brackets {} refer to TX-14JT1F,TC-14JR1F)

Power Source:	220-240V a.c., 50Hz
Power Consumption:	50W {33W}
Aerial Impedance:	75Ω unbalanced, Coaxial Type
Standby Power Consumption:	1,1W
Receiving System:	PAL-B/G, PAL-60 SECAM B/G,L/L'
Receiving Channels:	
VHF E2-E12	VHF B,C1,C' 1-6 (FRANCE)
VHF A-H (ITALY)	UHF E21-E69
CATV (S01-S05)	CATV S1-S10 (M1-M10)
CATV S11-S20 (U1-U10)	CATV S21-S41 (HYPERBAND)
Intermediate Frequency:	
Video	38,9MHz, 33,9MHz
Sound	33,4MHz, 32,4MHz, 40,4MHz
Colour	34,47MHz, 34,5MHz, 34,65MHz, 38,15MHz, 38,30MHz
Video/Audio Terminals:	
AV1 IN	Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 10kΩ RGB (21 pin)
AV1 OUT	Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 1kΩ
RCA IN	Video 1V p-p 75Ω
RCA IN	Audio 500mV rms 10kΩ
High Voltage:	26,7kV ± 1kV {22,7kV ± 1kV}
Picture Tube:	A51EAL135X13 51cm {A34EAC01X13 34cm}
Audio Output:	6W (Music Power), 3W (R.M.S.) 8Ω Impedance
Headphones	8Ω Impedance
Accessories supplied:	Remote Control 2 x R6 (UM3) Batteries
Dimensions:	
Height:	476mm {352mm}
Width:	512mm {371mm}
Depth:	470mm {371,5mm}
Net Weight:	20,6kg {9,5kg}

Specifications are subject to change without notice.
Weights and dimensions shown are approximate.

NOTE: This Service Manual should be used in conjunction with the Z-7 technical guide.

TECHNISCHE DATEN

(Werte in klammern gelten {} nur fur TX-14JT1F,TC-14JR1F)

Netzpannung:	220-240V a.c., 50Hz
Leistungsaufnahme:	50W {33W}
Antennenimpedanz:	75Ω asymmetrisch, Koaxial-Typ
Standby Leistungsaufnahme:	1,1W
Empfangssystem:	PAL-B/G, PAL-60 SECAM B/G,L/L'
Empfangsbereiche:	
VHF E2-E12	VHF B,C1,C' 1-6 (FRANCE)
VHF A-H (ITALY)	UHF E21-E69
CATV (S01-S05)	CATV S1-S10 (M1-M10)
CATV S11-S20 (U1-U10)	CATV S21-S41 (HYPERBAND)
Zwischenfrequenz:	
Video	38,9MHz, 33,9MHz
Sound	33,4MHz, 32,4MHz, 40,4MHz
Colour	34,47MHz, 34,5MHz, 34,65MHz, 38,15MHz, 38,30MHz
Video/Audio Anschlüsse:	
AV1 EINGANG	Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 10kΩ RGB (21 pin)
AV1 AUSGANG	Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 1kΩ
RCA EINGANG	Video 1V p-p 75Ω
RCA EINGANG	Audio 500mV rms 10kΩ
Hochspannung:	26,7kV ± 1kV {22,7kV ± 1kV}
Bildrohre:	A51EAL135X13 51cm {A34EAC01X13 34cm}
Ton Ausgangsleistung:	6W (Musikleistung), 3W (R.M.S.)
Lautsprecher	8Ω Impedanz
Kopfhörer:	8Ω Impedanz
Mitgel. Zubehör:	Fernbedienung 2 x R6 (UM3) Batterien
Abmessungen:	
Höhe:	476mm {352mm}
Breite:	512mm {371mm}
Tiefe:	470mm {371,5mm}
Gewicht:	20,6kg {9,5kg}

Änderungen der Technisichen Daten vorbehalten.
Gewichte und Abmessungen sind Näherungsangaben.

Hinweis: Bitte verwende Sie das Service Manual zusammen mit dem Technical Guide.

Panasonic

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SAFETY PRECAUTIONS

GENERAL GUIDE LINES

1. It is advisable to insert an isolation transformer in the a.c. supply before servicing a hot chassis.

2. When servicing, observe the original lead dress in the high voltage circuits. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.

3. After servicing, see that all the protective devices such as insulation barriers, insulation papers, shields and isolation R-C combinations are correctly installed.

4. When the receiver is not being used for a long period of time, unplug the power cord from the a.c. outlet.

5. Potentials as high as 27,7kV {23,7kV} are present when this receiver is in operation. Operation of the receiver without the rear cover involves the danger of a shock hazard from the receiver power supply. Servicing should not be attempted by anyone who is not familiar with the precautions necessary when working on high voltage equipment. Always discharge the anode of the tube.

6. After servicing make the following leakage current checks to prevent the customer from being exposed to shock hazard.

LEAKAGE CURRENT COLD CHECK

1. Unplug the a.c. cord and connect a jumper between the two prongs of the plug.

2. Turn on the receiver's power switch.

3. Measure the resistance value with an ohmmeter, between the jumpered a.c. plug and each exposed metallic cabinet part on the receiver, such as screw heads, aerials, connectors, control shafts etc. When the exposed metallic part has a return path to the chassis the reading should be between 4M ohm and 20M ohm. When the exposed metal does not have a return path to the chassis the reading must be infinite.

SICHERHEITSVORKEHRUNGEN

ALLGEMEINE RICHTLINIEN

1. Es ist empfehlenswert einen Trenntransformator in die Stromversorgung zu schalten, bevor Reparaturen an einem Gerät vorgenommen werden, dessen Chassis unter Spannung steht.
2. Bei der Durchführung von Servicearbeiten dürfen die ursprünglichen Kabelanschlüsse nicht vertauscht werden. Dies gilt insbesondere für die Anschlüsse im Hochspannungsteil. Hat sich ein Kurzschluß ereignet, dann sind alle Teile, an denen Spuren von Überhitzung sichtbar sind, auszuwechseln.
3. Nach Beenden der Servicearbeiten ist sicherzustellen, daß alle Sicherheitsvorrichtungen, wie Isolationsstege, Isolationspapiere, Abschirmungen und Isolations -R-C- Glieder wieder richtig eingesetzt sind.
4. Wenn der Fernseher während längerer Zeit nicht in Betrieb gesetzt wird, sollte der Netzstecker aus der Netzsteckdose gezogen werden.
5. Im Betrieb sind Spannungen bis zu 27,7kV {23,7kV} in diesem Gerät vorhanden. Die Inbetriebnahme des Fernsehers ohne aufgesetzte Rückwand bringt die Gefahr eines elektrischen Schlages von der Fernseher - Stromversorgung mit sich. Servicearbeiten solten daher auch nie durch Personen versucht werden, die nicht in vollem. Umfang mit den Sicherheitsvorkehrungen beim Umgang mit Hochspannungsgeräten vertraut sind. Vor der Handhabung mit der Bildröhre ist die Anode der Bildrohre immer an dem Empfängerchassis zu entladen.
6. Nach Beenden der Servicearbeiten sind die folgenden Kriechstrom-Prüfungen durchzuführen, um den Kunden vor der Gefahr eines elektrischen Schlages zu schützen.

MESSUNG DES ISOLATIONSWIDERSTANDES IM ABGESCHALTETEN ZUSTAND

1. Den Netsztecker aus der Netzsteckdose ziehen und die beiden Steckerstifte kurzschließen.

2. Den Geräteschalter des Fernsehgerätes einschalten.

3. Mit einem Ohmmeter den Widerstandswert zwischen dem überbrückten Netzkabelsteckerund jendem zugänglichen Metallteil am Gehäuse des Fernsehgerätes, wie Schraubenköpfe, Antennen, Achsen der Regler, Griffassungen usw.messen. Wenn ein zugängliches Metallteil keine Rückleitung zum Chassis hat, Muß die Anzeige unendlich betrgen.

LEAKAGE CURRENT HOT CHECK

1. Plug the a.c. cord directly into the a.c. outlet. Do not use an isolation transformer for this check.
2. Connect a 2kΩ 10W resistor in series with an exposed metallic part on the receiver and an earth, such as a water pipe.
3. Use an a.c. voltmeter with high impedance to measure the potential across the resistor.
4. Check each exposed metallic part and check the voltage at each point.
5. Reverse the a.c. plug at the outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 1,4 Vrms. In case a measurement is outside the limits specified, there is a possibility of a shock hazard, and the receiver should be repaired and rechecked before it is returned to the customer.

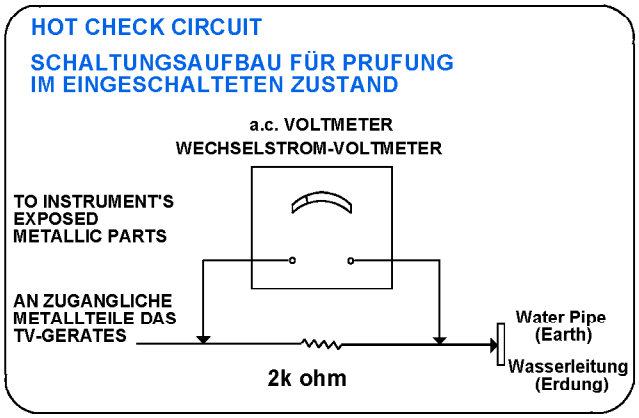


Fig.1.
Abb.1.

X-RADIATION WARNING

1. The potential sources of X-Radiation in TV sets are the high voltage section and the picture tube.
2. When using a picture tube test jig for service, ensure that the jig is capable of handling 27,7kV {23,7kV} without causing X-Radiation.

NOTE : It is important to use an accurate periodically calibrated high voltage meter.

1. Set the brightness to minimum.
2. Measure the high voltage. The meter should indicate 26,7kV ± 1kV {22,7kV ± 1kV}.
   If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure.
3. To prevent any X-Radiation possibility, it is essential to use the specified tube.

MESSUNG DES KRIECHSTROMS IM EINGESCHALTETEN ZUSTAND

1. Den Netzstecker direkt in eine Netsteckdose stecken. Für diese Messung keinen Trenntransformator verwenden.
2. Einen 2kΩ / 10W-Widerstand in Serie mit einem von außen zugänglichen Metallteil am Fernsehgerät und einer guten, Erdung z.B Wasserleitung, anschließen.
3. Ein Wechselstrom-Voltmeter mit einem Meßbereich von 1000 Ohm.Volt oder größer verwenden, um die Spannung über den Widerstand zu messen.
4. Jedes zugängliche Metallteil prüfen, und an jedem Punkt dies Spannung messen.
5. Den Netztecker umgekehrt in die Steckdose stecken und jede der obigen Messungen wiederholen.
6. Die Spannung darf an keinem der Punkte 1,4V eff. überschreiten. Wird dieser Wert nicht eingehalten, besteht die Gefar eines elektrischen Schlages, und das Fernsehgerät sollte daher repariert und nachgeprüft werden, bevor es an den Kunden zurückgegeben wird.

RÖNTGENSTRAHLUNG ACHTUNG :

1. Potentielle Quellen von Röntgenstrahlung in Fernsehgeräten sind das Hochspannungsteil und die Bildröhre.
2. Bei Verwendung eines Bildröhren-Prüfgerätes für den Service ist sicherzustellen, daß es für die Belastung von 27,7kV {23,7kV} geeignet ist, ohne daß eine Röntgenstrahlung verursacht wird.

ANMERKUNG : Es ist wichtig, daß ein präzises, regelmäßig geprüftes Voltmeter verwendet wird.

1. Helligkeit auf Minimum stellen.
2. Die Hochspannung messen. Die Anzeige des Instrumentes sollte 26,7kV ± 1kV {22,7kV ± 1kV}. Falls die Anziege diese Toleranzgrenzen überschreitet, ist die sofortige Behebung nötig, um die Möglichkeit vorzeitigen Komponentenausfalls zu verhüten.
3. Um die Möglichkeit von Röntgenstrahlung zu begrenzen, ist es wichtig, daß nur die vorgeschriebene Bildröhre verwendet wird.

SERVICE HINTS

HOW TO REMOVE THE REAR COVER

1. Remove the 5 screws as shown in Fig.2.

SERVICE HINWEISE

ENTFERNEN DER GERÄTERÜCKWAND

1. Die 5 Schrauben entfernen, siehe Abb.2.

Screws
Schrauben
Fig.2.
Abb.2.

LOCATION OF CONTROLS

LAGE DER EINSTELLREGLER

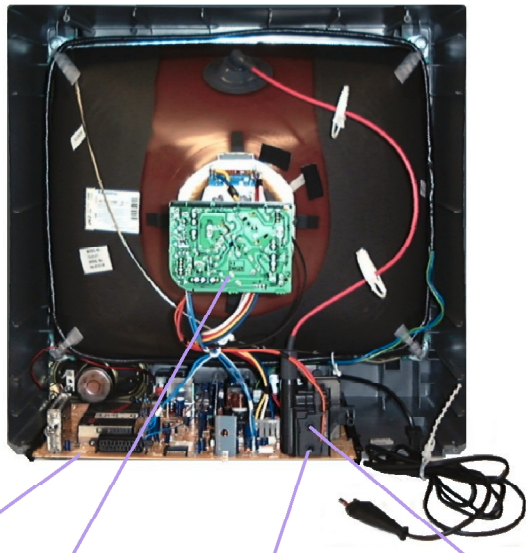


Fig.3.
Abb.3.

ADJUSTMENT PROCEDURE

Item/Preparation	Adjustments
+B SET-UP 1. Operate the TV set, pattern cross hatch. 2. Set the controls: Brightness Minimum Contrast Minimum Volume Minimum	Confirm the following voltages. **TPE1** 10 ± 1V **TPE2** 5,2 ± 0,3V **TPE3** 13 ± 1V {13,5 ± 1V} **TPE4** 21,5 ± 1,5V {20,5 ± 1,5V} **TPE5** 5 ± 0,3V **TPE6** 9 ± 1V **TPE9** 30,4 ± 2,5V {31 ± 2,5V} **TPE10** 191 ± 10V {147 ± 10V} **TPE11** -13,2 ± 1V {-13,8 ± 1V} **TPE12** 13,2 ± 1,5V {12,8 ± 1,5V} **TPE13** 125 ± 1,5V {104 ± 1,5V} **TPE14** 7,9 ± 1V **TPE18** 8,2 ± 1V {8,1 ± 1V} **TPE19** 31 ± 1V {30,6 ± 1,5V}

ABGLEICH

Vorbereitungen	Abgleich
+B - Abgleich 1. TV einschalten, pattern cross hatch. Helligkeit auf Minimum Kontrast auf Minimum Lautstärke Minimum	Die Messungen an den Testpunkten sollen folgende Betriebsspannungenergeben. **TPE1** 10 ± 1V **TPE2** 5,2 ± 0,3V **TPE3** 13 ± 1V {13,5 ± 1V} **TPE4** 21,5 ± 1,5V {20,5 ± 1,5V} **TPE5** 5 ± 0,3V **TPE6** 9 ± 1V **TPE9** 30,4 ± 2,5V {31 ± 2,5V} **TPE10** 191 ± 10V {147 ± 10V} **TPE11** -13,2 ± 1V {-13,8 ± 1V} **TPE12** 13,2 ± 1,5V {12,8 ± 1,5V} **TPE13** 125 ± 1,5V {104 ± 1,5V} **TPE14** 7,9 ± 1V **TPE18** 8,2 ± 1V {8,1 ± 1V} **TPE19** 31 ± 1V {30,6 ± 1,5V}

SELF CHECK

1. Self-check is used to automatically check the bus lines and hexadecimal code of the TV set.

2. To get into the Self-Check mode press the down **(-/v)** button on the customer controls at the front of the set,at the same time pressing the **STATUS** button on the remote control, and the screen will show :-

SELBSTDIAGNOSE

1. Die Selbstdiagnose dient zum automatischen Prüfen der Bus-Leitungen sowie des Hexadezimalcodes des FS-Geräts. Zum Umschalten auf Selbstdiagnose zunächst die Taste "**STATUS**" auf der Fernbedienung und gleichzeitig die-Taste am Bedienteil des FS-Gerätes drücken **(-/v)**, auf dem Bildschirm erscheint hierauf :-

2. Nach der Selbstdiagnose wird das Gerät automatisch auf sämtliche werksseitigen Standardeinstellungen zurückgesetzt :-

OPTION F7

If the CCU ports have been checked and found to be incorrect or not located then " - - " will appear in place of "O.K.".
Wenn der Hauptprozesser (CCU) an den Anschlüssen einen Fehler erkennt, oder der entsprechende Anschluss nicht belegt ist, zeigt die entsprechende Position " - - " anstelle von OK an.

Service Aids

To aid in the service of our current chassis there are a number of Service Aids which have been made available.

- **LUCI** interface kit (**L**inked **U**tility **C**omputer **I**nterface)
  Part number: TZS6EZ002
  This contains interface and cables for connecting TV service connector and a PC as well as diagnostic software. As new models are introduced upgrade software will become available.

- **VICI** (**V**isual **I**nteractive **C**omputer **I**nformation)
  These C.D.'s contain multimedia documentation providing quick access to service information.
  Part No. TZS7EZ006, TZS7EZ005, TZS8EZ001 & TZS9EZ001
  1. Service Manuals
  2. Instruction Books
  3. Technical Information

- **TASMIN** (**T**echnically **A**dvanced **S**ystem for **M**ultimedia **I**nteractive **N**otes)
  As well as providing a first step towards more interactive training this product also achieves quick access to Technical Information.

Service-Hilfen

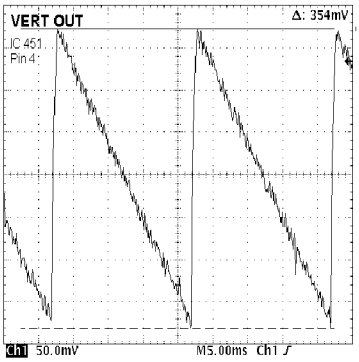
Zur Unterstützung der Servicearbeiten stehen weitere Hilfsmittel zur Verfügung.

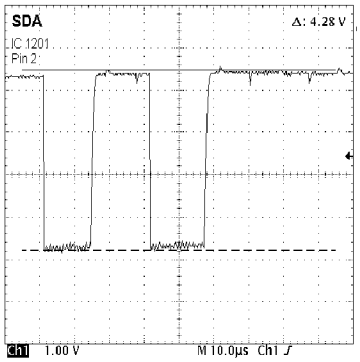
- **LUCI** interface kit (PC-unterstütztes Diagnosesystem)
  Bestell-Nr.: TZS6EZ002
  Es beinhaltet ein Interface, die Anschlusskabel zum FS-Gerät und die Diagnose-Software. Bei Einführung von neuen Modellen ist ein Update der Software jederzeit möglich.

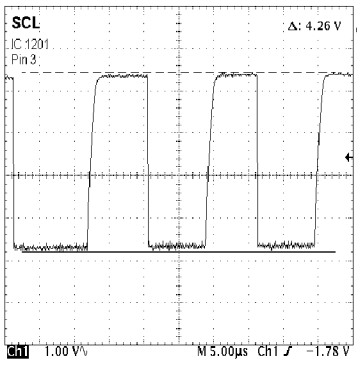
- **VICI** (Interaktive CD-ROM) mit schnellem Zugiff auf Serviceinformationen.
  Bestell-Nr.: TZS7EZ006, TZS7EZ005, TZS8EZ001 & TZS9EZ001
  1. Service Manuals
  2. Bedienungsanleitungen
  3. Technical Information

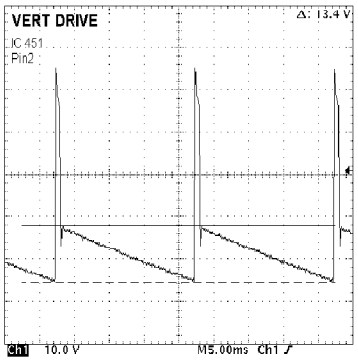
- **TASMIN** (Technisch erweitertes System für interaktive Multimedia-Hinweise und Notizen)
  Genauso wie dieses Produkt einen ersten Schritt in Richtung erweitertes interaktives Training bereitstellt, ermöglicht es einen noch schnelleren Zugang zu technischen Informationen.

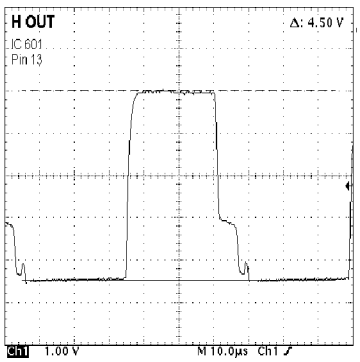
WAVEFORM PATTERN TABLE SIGNAL TABELLE

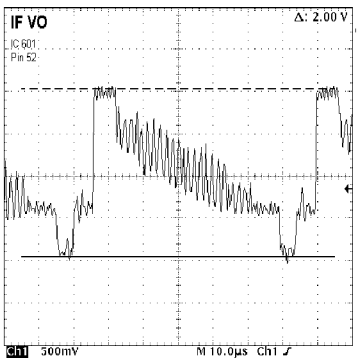


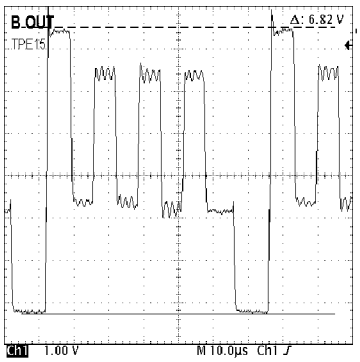


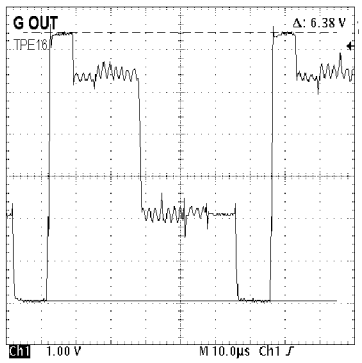


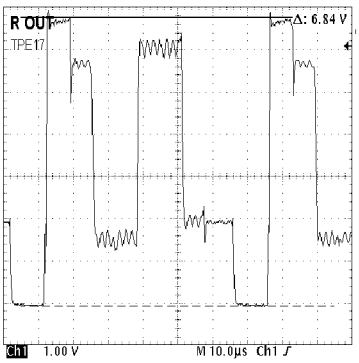


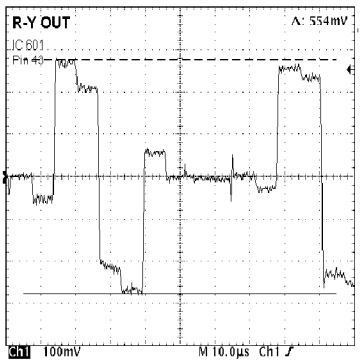


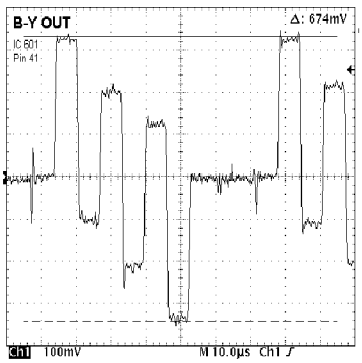












CONDITIONS:

Contrast:	**MAX**
Brightness:	**MID**
Colour:	**MID**
CATS:	**OFF**
Sharpness:	**MID**

ALIGNMENT SETTINGS

1. Select program position 60 and set the sharpness to minimum.
2. Press the **Off Timer** button on the remote control and at the same time press the ∨ (down) button on the customer controls at the front of the TV, this will place the TV into Service Mode.
3. Press the ∧ / ∨ buttons to step up / down through the functions.
4. Press the **+** / **-** buttons to after the function values.
5. Press the **STORE** button after each adjustment has been made to store the required values.
6. To exit Service Mode press the Normalisation button.

NOTE : The figures used below are nominal and used for representative purposes only.

Alignment Function	**Setting indication** **Note:** All setting values are approximate	**Settings / Special features**
1. Vertical amplitude	V-Amp 31	Optimum setting
2. Vertical position	V-Pos 22	Optimum setting
3. Horizontal centre	H-Ctr 07	Optimum setting.
4. Red cutoff	R-Cut 148	Optimum setting.
5. Green cutoff	G-Cut 146	Optimum setting.
6. Blue cutoff	B-Cut 163	Optimum setting.
7. Red drive	R-Drv 37	Optimum setting.
8. Blue drive	B-Drv 25	Optimum setting.
9. AGC	AGC 29	Optimum setting.
10. Sub contrast	S-Con 26	Optimum setting.
11. Sub colour	S-Col 49	Optimum setting.
12. Sub bright	S-Bri 43	Optimum setting.

ABGLEICHTABELLE

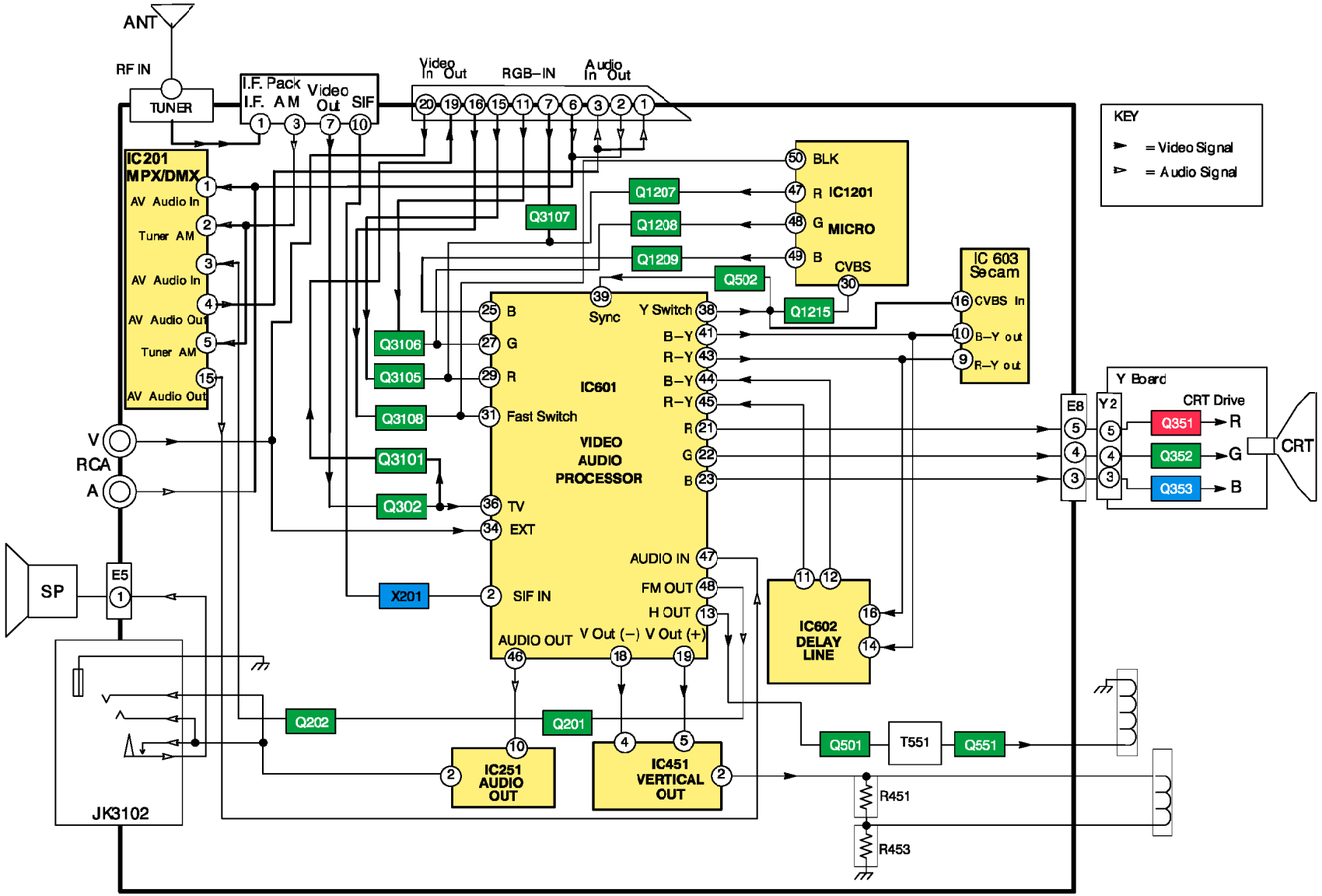
1. Programmplatz 60 wählen und Schärfe auf Minimum stellen.
2. Taste 'Ausschalt-Timer' auf der Fernbedienung und gleichzeitig die Taste 'V' (ab) auf dem Bedienungsfeld vorn am Fernsehgerät drücken, um das Gerät in den Service-Modus zu versetzen.
3. Die einzelnen Funktionen mit Hilfe der ∧ / ∨ Taste anwählen.
4. Mit der **+** / **-** Taste die Werte der einzelnen Funktionen ändern.
5. Nach jeder Einstellung die Taste **STR** auf der Fernbedienung oder am Bedienfeld drücken, um die geänderten Werte abzuspeichern.
6. Zum Verlassen des Service-Modus die **'N'**-Taste auf der Fernbedienung drücken.

ANMERKUNG : Die angegebenen Werte sind Mittelwerte und Können individuell nach oben oder uten nach dem korrekten Abgleich abwiechen.

Abgleichfunktion		**Einstellung / Besondere Merkmale**
1. Vertikale amplitude	V-Amp 31	Optimale Einstellung
2. Vertikale position	V-Pos 22	Optimale Einstellung
3. Horizontale centre	H-Ctr 07	Optimale Einstellung
4. Red cutoff	R-Cut 148	Optimale Einstellung
5. Green cutoff	G-Cut 146	Optimale Einstellung
6. Blue cutoff	B-Cut 163	Optimale Einstellung
7. Red drive	R-Drv 37	Optimale Einstellung
8. Blue drive	B-Drv 25	Optimale Einstellung
9. AGC	AGC 29	Optimale Einstellung
10. Sub contrast	S-Con 26	Optimale Einstellung
11. Sub colour	S-Col 49	Optimale Einstellung
12. Sub bright	S-Bri 43	Optimale Einstellung

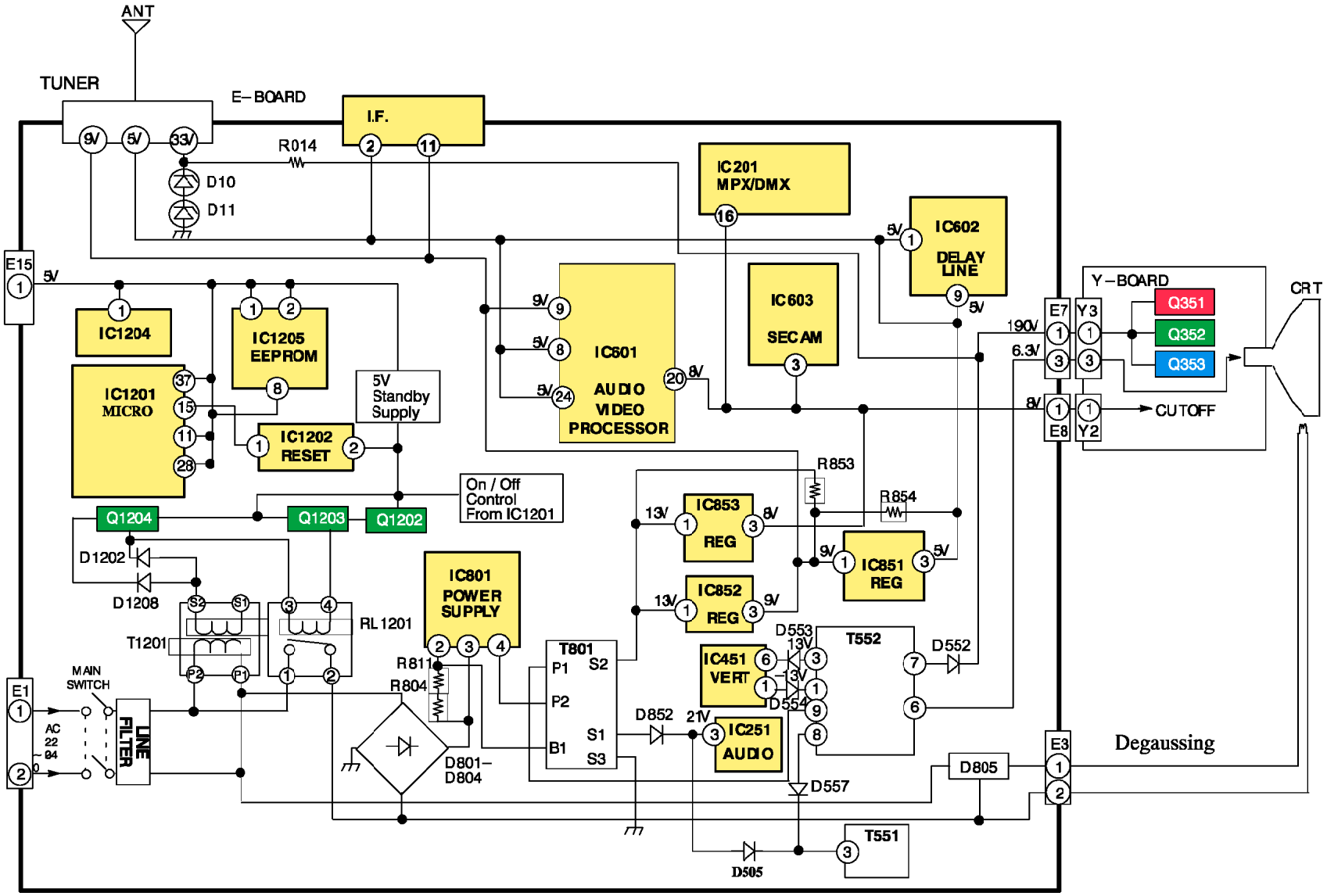
VIDEO & AUDIO BLOCK DIAGRAM

BILDSIGNAL & AUDIOSIGNAL BLOCKSCHEMA



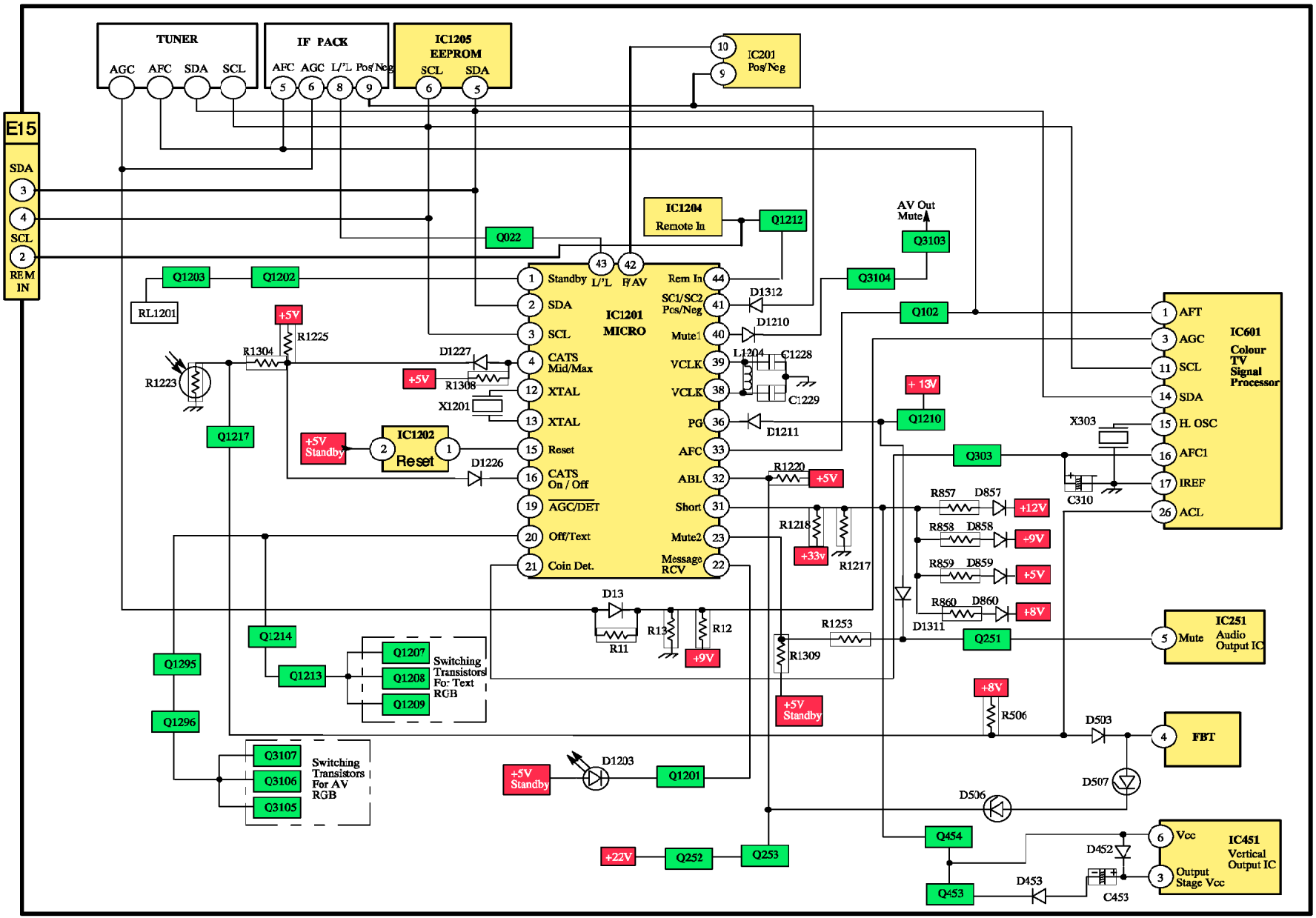
POWER SUPPLY BLOCK DIAGRAM

STROMVERSORGUNGS BLOSKSCHEMA



CONTROL BLOCK DIAGRAM

KONTROLL BLOCKSCHEMA

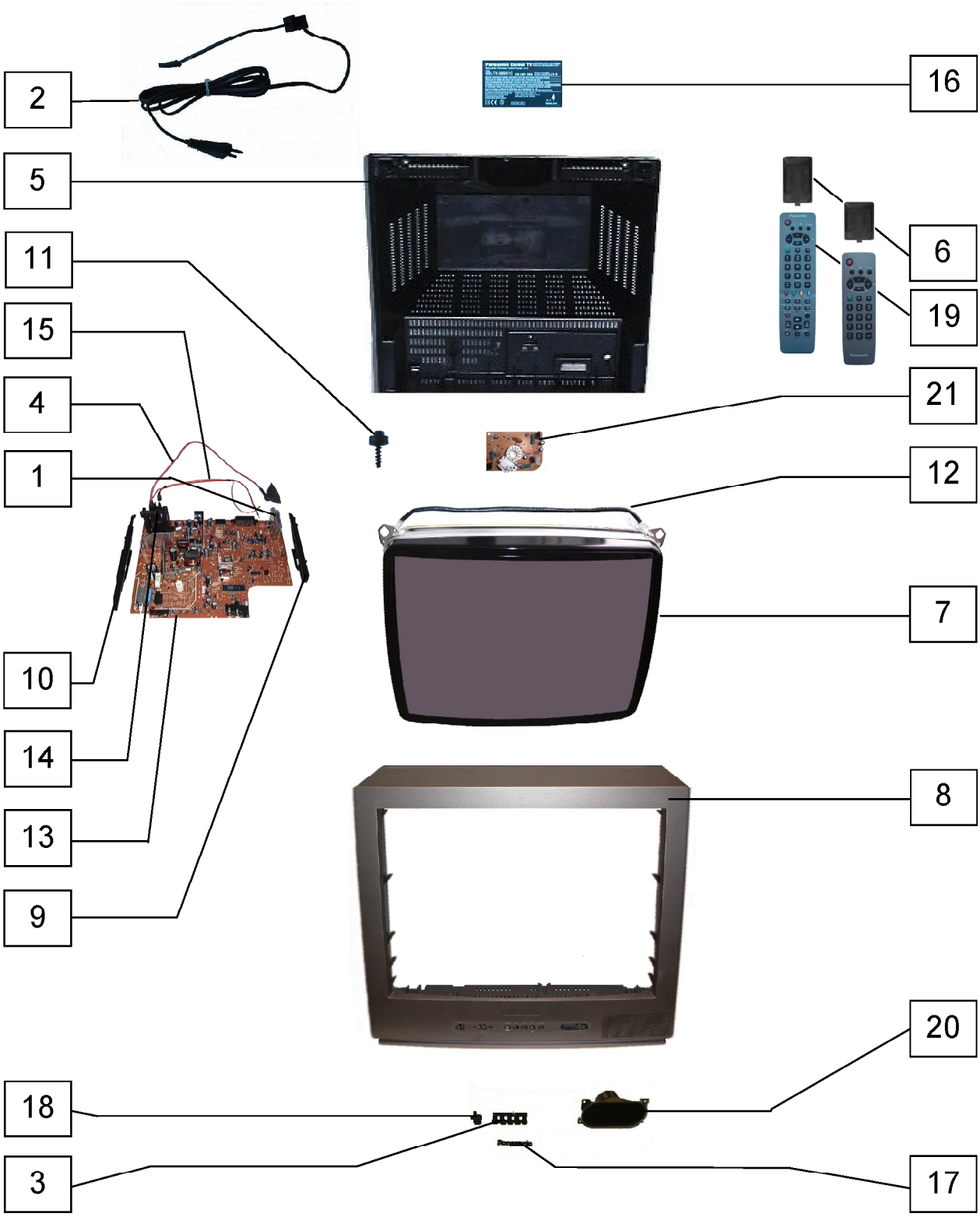


PARTS LOCATION

NOTE:
The numbers on the exploded view below refer to the exploded view section of the Replacement Parts List.

EXPLOSIONSZEICHNUNG

Anmerkung:
Die Nummern auf den Teilen der Explosionszeichnung zeigen die Bezugsnummern des Artikels der Explosionszeichnung der Ersatzteilliste an.



REPLACEMENT PARTS LIST

Important Safety Notice

Components Identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturers specified parts.
* In case of ordering these spare parts, please always add the complete Model-Type number to your order.

ERSATZTEILLISTE

Wichtiger Sicherhitshinweis

Teile, die mit einen Hinweis ⚠ gekennzeichnet sind wichtig für die Sicherhet. Solite ein Auswechsein erfordelrich sein, sind unbdingt Originalteile einzusetzen.
Bei der Bestellung von Ersatzteilen, di mit * gekennzeichnet sind, geben Sie bitte unbedingt die vollständige Typenbezeicnung mit an.

Cct Ref	Parts Number	Description	
COMMON PARTS			
EXPLODED VIEW			
1	ENG29501G	TUNER	
2	TSX8E0043	POWER CORD	⚠
MISCELLANEOUS COMPONENTS			
POE3	TMW8E015-2	LED HOLDER	
R1223	P1201	SENSOR	
I.C.s			
IC201	HEF4053BP	SWITCHING I.C.	
IC251	LA4265	AUDIO OUTPUT	
IC451	LA7840	VERTICAL OUTPUT	
IC601	M52778SP-A	AUDIO VIDEO PROCESSOR	
IC602	U3666M-MDP	DELAY LINE	
IC603	TDA8395PN2	SECAM DECODER	
IC801	STR58041A	POWER SUPPLY	
IC851	L78M05MRB	5V REGULATOR	
IC852	AN7809LB	9V REGULATOR	
IC853	AN78M08LB	8V REGULATOR	
IC1202	MN1280R	RESET	
IC1204	RPM-6937	LED RECEIVER	
FUSES			
F801	19181-3.15	FUSE	⚠
F801-2	EYF52BC	FUSE HOLDER	
F801-1	EYF52BC	FUSE HOLDER	
DIODES			
D010	MA4150	DIODE	
D011	MA4150	DIODE	
D304	1SS355TE-17	DIODE	
D306	MTZJT-774.7A	DIODE	
D307	MTZJT-774.7A	DIODE	
D351	MA165TA5	DIODE	
D352	MA165TA5	DIODE	
D353	MA165TA5	DIODE	
D354	MA165TA5	DIODE	
D452	ERA15-02V3	DIODE	
D453	MA165TA5	DIODE	
D454	MA165TA5	DIODE	
D455	MA165TA5	DIODE	
D503	MA165TA5	DIODE	
D504	MA165TA5	DIODE	
D505	1SR124-4AT82	DIODE	
D506	MTZJ33B	DIODE	
D541	MA165TA5	DIODE	
D542	MA165TA5	DIODE	
D551	TVSRH2FV1	DIODE	

Cct Ref	Parts Number	Description
D552	RU2AMLFA1	DIODE
D553	1SR124-4AT82	DIODE
D554	1SR124-4AT82	DIODE
D555	ERA22-02V3	DIODE
D556	MA165TA5	DIODE
D557	1SR124-4AT82	DIODE
D801	EMO2BMV0	DIODE
D802	EMO2BMV0	DIODE
D803	EMO2BMV0	DIODE
D804	EMO2BMV0	DIODE
D808	1SR124-4AT82	DIODE
D809	1SR124-4AT82	DIODE
D810	RU3LFA1	DIODE
D811	1SR124-4AT82	DIODE
D812	R2KNLFA1	DIODE
D814	MA165TA5	DIODE
D815	1SR124-4AT82	DIODE
D816	1SR124-4AT82	DIODE
D851	TVSRU3AMLFA5	DIODE
D852	TVSRU2AMV1	DIODE
D857	MA165TA5	DIODE
D858	MA165TA5	DIODE
D859	MA165TA5	DIODE
D860	MA165TA5	DIODE
D861	MA165TA5	DIODE
D1202	1N4150T-77	DIODE
D1203	SLR56UR3FLF	LED
D1205	1N4150T-77	DIODE
D1207	MTZJT-778.2A	DIODE
D1208	1N4150T-77	DIODE
D1209	MTZJT-775.1C	DIODE
D1211	MA165TA5	DIODE
D1212	MA165TA5	DIODE
D1213	MA165TA5	DIODE
D1214	1N4150T-77	DIODE
D1217	MA165TA5	DIODE
D1218	MA165TA5	DIODE
D1219	MA165TA5	DIODE
D1220	MA165TA5	DIODE
D1221	MA165TA5	DIODE
D1222	MA165TA5	DIODE
D1224	MA165TA5	DIODE
D1226	MA700TA5	DIODE
D1227	MA700TA5	DIODE
D1301	MTZJT-775.1A	DIODE
D1311	MA165TA5	DIODE
D1312	MA700TA5	DIODE
D3101	MA165TA5	DIODE
TRANSISTORS		
Q102	BC847B	TRANSISTOR
Q201	BC847B	TRANSISTOR
Q202	BC847B	TRANSISTOR

Cct Ref	Parts Number	Description
Q251	BC847B	TRANSISTOR
Q302	BC847B	TRANSISTOR
Q303	BC847B	TRANSISTOR
Q354	BC857B	TRANSISTOR
Q453	BC847B	TRANSISTOR
Q454	BC847B	TRANSISTOR
Q501	2SD2398-M2	TRANSISTOR
Q502	BC857B	TRANSISTOR
Q503	BC847B	TRANSISTOR
Q504	BC847B	TRANSISTOR
Q551	BU2506DFRB	TRANSISTOR
Q801	BC847B	TRANSISTOR
Q802	2SD965-R	TRANSISTOR
Q1201	BC847B	TRANSISTOR
Q1202	BC847B	TRANSISTOR
Q1203	BC847B	TRANSISTOR
Q1204	2SC1317-TA	TRANSISTOR
Q1205	BC847B	TRANSISTOR
Q1207	BC847B	TRANSISTOR
Q1208	BC847B	TRANSISTOR
Q1209	BC847B	TRANSISTOR
Q1210	BC857B	TRANSISTOR
Q1211	BC857B	TRANSISTOR
Q1212	BC847B	TRANSISTOR
Q1213	BC847B	TRANSISTOR
Q1217	2SD965-R	TRANSISTOR
Q1240	BC847B	TRANSISTOR
Q1295	BC857B	TRANSISTOR
Q1296	BC847B	TRANSISTOR
Q3101	2SC1318-S	TRANSISTOR
Q3103	2SD1328STX	TRANSISTOR
Q3104	BC857B	TRANSISTOR
Q3105	BC857B	TRANSISTOR
Q3106	BC857B	TRANSISTOR
Q3107	BC857B	TRANSISTOR
Q3108	BC857B	TRANSISTOR
TRANSFORMERS		
T551	ETH19Z169AZ	TRANSFORMER ⚠
T1201	ETP35KAN617U	TRANSFORMER ⚠
COILS		
J208	EXCELSA39V	COIL
J305	EXCELSA39V	COIL
JEY	EXCELDR35V	COIL
L010	EXCELSA35T	COIL
L012	EXCELSA35T	COIL
L451	EXCELSA35T	COIL
L803	EXCELSA35T	COIL
L804	EXCELDR35V	COIL
L851	EXCELSA35T	COIL
L852	EXCELSA35T	COIL
L1201	EXCELSA35T	COIL
L1202	TLTACT331K	COIL
L1203	TLTACT100K	COIL
L1204	ERJNA6R8GF	COIL
L1207	TLTACT100K	COIL
L1208	TLTACT100K	COIL
L1209	EXCELSA35T	COIL
R016	ELJFC6R8KF	COIL
R017	ELJFC6R8KF	COIL
FILTERS		
L801	ELF15N005A	LINE FILTER
X201	EFCS5R5MS5	FILTER
X303	TAFCSB503F6	FILTER
CRYSTALS		
X601	LN-P-01S	CRYSTAL

Cct Ref	Parts Number	Description			
X1201	CSA18.00MXZ	CRYSTAL			
RESISTORS					
C605	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JC1	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JC2	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JC3	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JC7	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JC8	ERJ8GEY0R00	S.M.CARB	.125W	5%	0 Ω
JC9	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JC11	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JC12	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JC13	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JC14	ERJ8GEY0R00	S.M.CARB	.125W	5%	0 Ω
JC20	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JC21	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JC22	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JC23	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JC25	ERJ8GEY0R00	S.M.CARB	.125W	5%	0 Ω
JC26	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JC28	ERJ8GEY0R00	S.M.CARB	.125W	5%	0 Ω
JC30	ERJ8GEY0R00	S.M.CARB	.125W	5%	0 Ω
JC31	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JC35	ERJ8GEY0R00	S.M.CARB	.125W	5%	0 Ω
JEAD	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JEF	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JEJ	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JEN	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JEX	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
JEZ	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R010	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15K Ω
R011	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R014	ERG2SJS273	METAL	2W	5%	27K Ω ⚠
R107	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R111	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R112	ERJ8GEYJ122	S.M.CARB	.125W	5%	1K2 Ω
R114	ERJ6GEYJ123	S.M.CARB	0.1W	5%	12K Ω
R116	ERJ8GEYJ152	S.M.CARB	.125W	5%	1K5 Ω
R117	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47K Ω
R203	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2 Ω
R205	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R206	ERJ6GEYJ182	S.M.CARB	0.1W	5%	1K8 Ω
R214	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R215	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R221	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220 Ω
R222	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R223	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R230	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R231	ERJ6GEYJ563	S.M.CARB	0.1W	5%	56K Ω
R232	ERJ6GEYJ563	S.M.CARB	0.1W	5%	56K Ω
R233	ERJ6GEYJ563	S.M.CARB	0.1W	5%	56K Ω
R234	ERJ6GEYJ391	S.M.CARB	0.1W	5%	390 Ω
R235	ERJ6GEYJ563	S.M.CARB	0.1W	5%	56K Ω
R251	ERJ6GEYJ3R3	S.M.CARB	0.1W	5%	3R3 Ω
R256	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100K Ω
R257	ERQ1CJP120	FUSIBLE	1W	5%	12 Ω ⚠
R259	ERJ6GEYJ331	S.M.CARB	0.1W	5%	330 Ω
R260	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3 Ω
R261	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω
R301	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R302	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R303	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R304	ERJ6ENF2201	S.M.CARB	0.1W	1%	2K2 Ω
R305	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270 Ω
R306	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270 Ω
R307	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270 Ω
R313	ERQ14AJ470	METAL	0.25W	5%	47 Ω ⚠

Cct Ref	Parts Number	Description			
R314	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R315	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R317	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R318	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R319	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R320	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R321	ERJ6GEYJ243	S.M.CARB	0.1W	5%	24K Ω
R322	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47K Ω
R372	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R373	ERJ6GEYJ391	S.M.CARB	0.1W	5%	390 Ω
R374	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R401	ERJ6ENF9100	S.M.CARB	0.1W	1%	910 Ω
R402	ERJ6ENF8201	S.M.CARB	0.1W	1%	8K2 Ω
R403	ERJ6ENF6801	S.M.CARB	0.1W	1%	6K8 Ω
R451	ERDS1TJ331	CARBON	0.5W	5%	330 Ω
R452	ERJ6GEYJ1R0	S.M.CARB	0.1W	5%	1 Ω
R454	ERJ6GEYF153V	S.M.CARB	0.1W	5%	15K Ω
R456	ERO25CKF5601	METAL	0.25W	1%	6K1 Ω ⚠
R457	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R458	ERDS2TJ683T	CARBON	2W	5%	68K Ω
R459	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3 Ω
R460	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47K Ω
R461	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47K Ω
R462	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47K Ω
R501	ERJ6GEYJ391	S.M.CARB	0.1W	5%	390 Ω
R502	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680 Ω
R503	ERG3SJS101	METAL	3W	5%	10 Ω ⚠
R504	ERG2ANJP471H	METAL	2W	5%	470 Ω
R505	ERJ6GEYJ433	S.M.CARB	0.1W	5%	43K Ω
R510	ERJ6GEYJ561	S.M.CARB	0.1W	5%	560 Ω
R511	ERJ6GEYJ334	S.M.CARB	0.1W	5%	330K Ω
R512	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5 Ω
R513	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R514	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5 Ω
R515	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R516	ERJ6GEYJ273	S.M.CARB	0.1W	5%	27K Ω
R518	ERJ6ENF1302	S.M.CARB	0.1W	1%	13K Ω
R520	ERJ6GEYJ334	S.M.CARB	0.1W	5%	330K Ω
R521	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R541	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3 Ω
R601	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3 Ω
R602	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R603	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R604	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R605	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R606	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R611	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R612	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R613	ERJ6GEYJ395	S.M.CARB	0.1W	5%	3M9 Ω
R614	2-640463-3	METAL	2W	5%	22K Ω
R801	ERF5ZK2R7	WOUND	5W	20%	2R7 Ω ⚠
R804	ERDS1TJ224T	CARBON	0.5W	5%	220K Ω
R805	ERW2PKR33	WOUND	2W	20%	R33 Ω ⚠
R806	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R808	ERG12SJ561P	METAL	0.5W	5%	650 Ω
R809	ERG2ANJP560H	METAL	2W	5%	56 Ω ⚠
R810	ERQ12HJ100	FUSIBLE	0.5W	5%	10 Ω ⚠
R811	ERDS1TJ224T	CARBON	0.5W	5%	220K Ω
R813	ERJ6GEYJ202	S.M.CARB	0.1W	5%	2K Ω
R814	ERD75TAJ825	CARBON	0.75W	5%	8M2 Ω ⚠
R819	ERDS1TJ104	CARBON	0.5W	5%	100K Ω
R853	ERG2ANJP270H	METAL	2W	5%	27 Ω
R854	ERG2ANJP330H	METAL	2W	5%	33 Ω
R857	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R858	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R859	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω

Cct Ref	Parts Number	Description			
R860	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R861	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R1201	ERQ1CJP2R2	FUSIBLE	1W	10%	2R2 Ω ⚠
R1202	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1203	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1204	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1205	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1206	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1208	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1209	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1210	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1211	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1212	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1214	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1219	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1220	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R1221	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270 Ω
R1222	ERJ6GEYJ330	S.M.CARB	0.1W	5%	33 Ω
R1224	ERJ6GEYJ683	S.M.CARB	0.1W	5%	68K Ω
R1225	ERJ6GEYJ433	S.M.CARB	0.1W	5%	43K Ω
R1226	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1227	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1228	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1229	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1231	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1232	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1233	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1234	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1235	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5 Ω
R1236	2-640463-3	METAL	2W	5%	22K Ω
R1237	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R1238	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1239	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1240	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1243	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1244	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1246	ERD25TJ272F	CARBON	0.25W	5%	2K7 Ω
R1247	ERDS2TJ221T	CARBON	0.5W	5%	220 Ω
R1248	2-640463-3	METAL	2W	5%	22K Ω
R1249	ERDS1TJ121	CARBON	0.5W	5%	120 Ω
R1250	ERDS1TJ560	CARBON	0.5W	5%	56 Ω
R1255	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1257	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1258	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R1259	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1261	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2 Ω
R1263	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2 Ω
R1265	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2 Ω
R1266	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1267	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1268	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1269	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1270	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1271	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1272	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1273	ERJ6GEYJ333	S.M.CARB	0.1W	5%	33K Ω
R1274	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100K Ω
R1276	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1279	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R1280	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R1282	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1283	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1284	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1285	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R1286	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R1287	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω

Cct Ref	Parts Number	Description			
R1288	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R1289	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1293	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1294	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1295	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1296	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1298	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1303	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1308	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1309	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1311	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R3101	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R3102	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R3103	ERJ6GEYJ564	S.M.CARB	0.1W	5%	560K Ω
R3104	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100K Ω
R3105	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3106	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3107	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3108	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3109	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220 Ω
R3110	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R3111	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3114	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3115	ERDS1TJ750	CARBON	0.5W	5%	75 Ω
R3120	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3121	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R3122	ERJ6GEYJ182	S.M.CARB	0.1W	5%	1K8 Ω
R3123	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220 Ω
R3124	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220 Ω
R3125	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R3126	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15K Ω
R3127	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3128	ERJ6GEYJ273	S.M.CARB	0.1W	5%	27K Ω
R3130	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R3132	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R3133	2-640463-3	METAL	2W	5%	22K Ω
R3134	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R3136	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R3137	2-640463-3	METAL	2W	5%	22K Ω
R3138	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R3140	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R3141	2-640463-3	METAL	2W	5%	22K Ω
R3142	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R3143	ERJ6GEYJ181	S.M.CARB	0.1W	5%	180 Ω

CAPACITORS

C010	ECJ2VB1H103K	ELECT	350V	10nF
C012	ECJ2VB1H103K	ELECT	350V	10nF
C014	ECUV1H080DCX	S.M. CAP	50V	80pF
C015	ECA1HM330B	ELECT	50V	33µF
C019	ECJ2VB1H103K	ELECT	350V	10nF
C022	ECUV1H150JCX	S.M. CAP	50V	15pF
C023	ECUV1H150JCX	S.M. CAP	50V	15pF
C027	ECUV1H222JCX	S.M. CAP	50V	2.2nF
C029	ECUV1H101JCX	S.M. CAP	50V	100pF
C030	ECUV1H221JCX	S.M. CAP	50V	220pF
C113	ECJ2VB1H103K	ELECT	350V	10nF
C205	ECEA1HN2R2UB	ELECT	50V	2.2µF
C206	ECEA1HN2R2UB	ELECT	50V	2.2µF
C207	ECEA1CN100	ELECT	16V	10µF
C208	ECEA1CU100	ELECT	16V	10µF
C210	ECEA1HN2R2UB	ELECT	50V	2.2µF
C214	ECEA1HN2R2UB	ELECT	50V	2.2µF
C215	ECJ2VF1H104Z	ELECT	350V	100nF
C251	ECA1EM471GB	ELECT	25V	470µF
C253	ECA1EHG470B	ELECT	50V	47pF
C254	ECUV1H272JCX	S.M. CAP	50V	2.7nF

Cct Ref	Parts Number	Description			
C258	ECA1EHG101B	ELECT	50V	100nF	
C260	ECA1EM102GB	ELECT	25V	100µF	
C261	ECUV1H471JCX	S.M. CAP	50V	470pF	
C301	ECEA1HU101	ELECT	50V	100µF	
C302	ECJ2VF1H104Z	ELECT	350V	100nF	
C304	ECJ2VF1H104Z	ELECT	350V	100nF	
C305	ECEA1HU101	ELECT	50V	100µF	
C307	ECEA1HU101	ELECT	50V	100µF	
C308	ECUV1H104ZFW	S.M. CAP	50V	100nF	
C309	ECJ2VB1H103K	ELECT	350V	10nF	
C311	ECJ2VF1H104Z	ELECT	350V	100nF	
C312	ECJ2VF1H104Z	ELECT	350V	100nF	
C313	ECJ2VF1H104Z	ELECT	350V	100nF	
C314	ECEA1HNR47UB	ELECT	50V	0.47µF	
C315	ECEA1HN2R2UB	ELECT	50V	2.2µF	
C317	ECEA1HU101	ELECT	50V	100µF	
C318	ECEA1HNR47UB	ELECT	50V	0.47µF	
C319	ECJ2VF1H104Z	ELECT	350V	100nF	
C355	ECKC3D152J	CERAMIC	2KV	1.5nF	⚠
C357	ECKC2H152J	CERAMIC	500V	1.5nF	⚠
C362	ECUV1H102ZFX	S.M. CAP	50V	1nF	
C368	ECEA2EU010	ELECT	250V	1µF	
C370	ECA1CM220GB	ELECT	16V	22µF	
C401	ECJ2VB1H223K	ELECT	350V	22nF	
C402	ECJ2VB1H472K	ELECT	350V	4.7nF	
C404	ECJ2VF1H103Z	ELECT	350V	10nF	
C461	ECUV1H100CCX	S.M. CAP	50V	10pF	
C502	ECJ2VB1H223K	ELECT	350V	22nF	
C503	ECUV1H391JCX	S.M. CAP	50V	390pF	
C504	ECEA1HN010UB	ELECT	50V	1µF	
C505	ECUV1H331JCX	S.M. CAP	50V	330pF	
C506	ECQM1273KZW	FILM	100V	27nF	
C507	ECA1HHG100B	ELECT	50V	10µF	
C541	ECEA1EN4R7UB	ELECT	25V	4.7µF	
C559	ECKC2H471J	CERAMIC	500V	470pF	⚠
C560	ECKC2H471J	CERAMIC	500V	470pF	⚠
C561	ECEA2EU100	ELECT	250V	10µF	
C562	ECKC2H471J	CERAMIC	500V	470pF	⚠
C566	ECKC2H471J	CERAMIC	500V	470pF	⚠
C601	ECJ2YB1H473K	ELECT	350V	47nF	
C602	ECJ2VB1H153K	ELECT	350V	15nF	
C606	ECJ2VF1H104Z	ELECT	350V	100nF	
C607	ECJ2VF1H104Z	ELECT	350V	100nF	
C608	ECUV1H470JCX	S.M. CAP	50V	47pF	
C609	ECUV1H470JCX	S.M. CAP	50V	47pF	
C610	ECEA1HU101	ELECT	50V	100µF	
C611	ECJ2VF1H104Z	ELECT	350V	100nF	
C612	ECJ2VB1H103K	ELECT	350V	10nF	
C613	ECJ2VB1H103K	ELECT	350V	10nF	
C614	ECJ2VF1H104Z	ELECT	350V	100nF	
C616	222236576104	FILM	760V	100nF	
C617	ECJ2VF1H104Z	ELECT	350V	100nF	
C618	ECEA1HU101	ELECT	50V	100µF	
C619	ECJ2VB1H103K	ELECT	350V	10nF	
C620	ECJ2VB1H103K	ELECT	350V	10nF	
C623	ECUV1H104ZFW	S.M. CAP	50V	100nF	
C624	ECUV1H560JCX	S.M. CAP	50V	56pF	
C625	ECUV1H560JCX	S.M. CAP	50V	56pF	
C626	ECUV1H560JCX	S.M. CAP	50V	56pF	
C627	ECUV1H560JCX	S.M. CAP	50V	56pF	
C628	ECUV1H390JCX	S.M. CAP	50V	39pF	
C630	ECUY1H103JCW	S.M. CAP	50V	10nF	
C803	ECKC2H472J	CERAMIC	500V	4.7nF	⚠
C804	ECKC2H472J	CERAMIC	500V	4.7nF	⚠
C805	ECKC2H472J	CERAMIC	500V	4.7nF	⚠
C806	ECKC2H472J	CERAMIC	500V	4.7nF	⚠

Cct Ref	Parts Number	Description			
C807	ECOS2GA101BB	ELECT	400V	100µF	
C808	ECQB1H333J	FILM	50V	33nF	
C810	ECA1VM101GB	ELECT	35V	100µF	
C812	ECA2CHG221E	ELECT	160V	220µF	
C817	ECA1VM101GB	ELECT	35V	100µF	
C818	ECKWNA471MB	CERAMIC	250V	470pF	⚠
C820	ECKWNA332MEC	CERAMIC	250V	3.3nF	⚠
C853	ECA1EHG102B	ELECT	25V	1000µF	
C854	ECA1HHG471E	ELECT	50V	470µF	
C855	ECJ2VF1H104Z	ELECT	350V	100nF	
C856	ECJ2VF1H104Z	ELECT	350V	100nF	
C857	ECEA1HU101	ELECT	50V	100µF	
C858	ECA1AM222B	ELECT	10V	2200µF	
C859	ECJ2VF1H104Z	ELECT	350V	100nF	
C860	ECEA1HU101	ELECT	50V	100µF	
C861	ECA1CM102B	ELECT	16V	1000µF	
C1201	ECA1EM102GB	ELECT	25V	100µF	
C1203	ECA1EM471GB	ELECT	25V	470µF	
C1204	ECUV1H471KBX	S.M. CAP	50V	470pF	
C1205	ECUV1H471KBX	S.M. CAP	50V	470pF	
C1206	ECUV1H471KBX	S.M. CAP	50V	470pF	
C1207	ECUV1H471KBX	S.M. CAP	50V	470pF	
C1208	ECUV1H471KBX	S.M. CAP	50V	470pF	
C1210	ECJ2YB1H473K	ELECT	350V	47nF	
C1219	ECJ2VF1H104Z	ELECT	350V	100nF	
C1221	ECUV1H331JCX	S.M. CAP	50V	330pF	
C1226	ECJ2VF1H104Z	ELECT	350V	100nF	
C1227	ECEA1HU101	ELECT	50V	100µF	
C1229	ECUV1H470GCG	S.M. CAP	50V	47pF	
C1232	ECJ2VF1H104Z	ELECT	350V	100nF	
C1234	ECJ2VF1H104Z	ELECT	350V	100nF	
C1241	ECEA1HU101	ELECT	50V	100µF	
C1244	ECEA1CU100	ELECT	16V	10µF	
C1249	ECJ2VF1H104Z	ELECT	350V	100nF	
C1256	ECJ2YB1H104K	ELECT	350V	100nF	
C1257	ECUV1H561JCX	S.M. CAP	50V	560pF	
C1258	ECEA1CU100	ELECT	16V	10µF	
C1259	ECUV1H150JCX	S.M. CAP	50V	15pF	
C1260	ECUV1H560JCX	S.M. CAP	50V	56pF	
C1261	ECEA1HU101	ELECT	50V	100µF	
C1262	ECUV1H390JCX	S.M. CAP	50V	39pF	
C1263	ECUV1H390JCX	S.M. CAP	50V	39pF	
C1264	ECUV1H390JCX	S.M. CAP	50V	39pF	
C1265	ECUV1H560JCX	S.M. CAP	50V	56pF	
C1266	ECEA1CU100	ELECT	16V	10µF	
C3101	ECUV1H101JCX	S.M. CAP	50V	100pF	
C3102	ECUV1H561KBX	S.M. CAP	50V	560pF	
C3104	ECJ2VB1H102K	ELECT	350V	1nF	
C3105	ECUV1H101JCX	S.M. CAP	50V	100pF	
C3109	ECUV1H561JCX	S.M. CAP	50V	560pF	
C3110	222236516684	FILM	160V	680nF	
C3113	ECJ2VB1H103K	ELECT	350V	10nF	
C3115	ECEA1CN100	ELECT	16V	10µF	
C3117	ECJ2VF1H104Z	ELECT	350V	100nF	
C3118	ECEA1CN100	ELECT	16V	10µF	
C3119	ECEA1CN100	ELECT	16V	10µF	
L202	ECCR1H560J	CERAMIC	50V	56pF	
TERMINALS AND LINKS					
JK3101	TJB8E011	SCART SOCKET			
JK3102	TJB16663	A.V. TERMINAL			
SWITCHES					
S801	ESB91232A	SWITCH			⚠
S1201	EVQ21405R	SWITCH			
S1202	EVQ21405R	SWITCH			
S1203	EVQ21405R	SWITCH			
S1204	EVQ21405R	SWITCH			

Cct Ref	Parts Number	Description				
S1205	EVQ21405R	SWITCH				
RELAYS						
RL1201	TSE1885-1	RELAY				⚠

DIFFERENCES FOR MODEL TC--14JR1F

EXPLODED VIEW						
3	TBX8E077	5-KEY BUTTON				
4	ZTUZAE350B	ANODE LEAD				⚠
5	TKU8E00510	BACK COVER				⚠
6	UR51CS946-2	BATTERY COVER (REMOTE)				
7	A34EAC01X13	C.R.T.				⚠
8	TKY8E440	CABINET				
11	THE492-4	CRT FIXING SCREW				
12	TLK8E05134	DEGAUSS COIL				⚠
13	TNP8EE007DQ	E P.C.B.				⚠
14	ZTFM23001A	F.B.T.				⚠
15	TXFJTF01BTDG	FOCUS LEAD ASSY				⚠
16	TBM8E2074	MODEL LABEL				
17	TBM8E1927	PANASONIC BADGE				
18	TBX8E076	POWER BUTTON				
19	EUR511380	REMOTE CONTROL				
20	EASG9D556A2	SPEAKER				
21	TNP8EY011AJ	Y P.C.B.				⚠
MISCELLANEOUS COMPONENTS						
0	TKP8E1315	IR WINDOW				
0	TPC8F4865	OUTER CARTON				
0	TPD8E704	TOP CUSHION				
0	TPD8E705	BOTTOM CUSHION				
0	TSA120026	MONOPOLE ANTENNA				
0	UM-3DJ-2P	BATTERY PACK				
D805	59122T80B110	THERMISTOR				⚠
S351	0330660069	CRT SOCKET				⚠
INSTRUCTION BOOKS						
0	TQB8E3005A	GERMAN				⚠
0	TQB8E3005B	DUTCH				⚠
0	TQB8E3005D	FRENCH				⚠
0	TQB8E3005E	SPANISH				⚠
I.C.s						
IC1201	SDA5222V23	MICRO PROCESSOR				
IC1205	X24SI1-1MFZ	EAROM				
DIODES						
D1228	1SS355TE-17	DIODE				
TRANSISTORS						
Q351	TYMQ0003	TRANSISTOR				
Q352	TYMQ0003	TRANSISTOR				
Q353	TYMQ0003	TRANSISTOR				
TRANSFORMERS						
T801	ETS29AK237AC	TRANSFORMER				⚠
FILTERS						
L802	ELF15N005A	LINE FILTER				
RESISTORS						
C1230	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
C1245	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
JYA	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R252	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω	
R254	ERJ6GEYJ560	S.M.CARB	0.1W	5%	56 Ω	
R255	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270 Ω	
R351	ERG1SJ123E	METAL	1W	5%	12K Ω	
R352	ERG1SJ123E	METAL	1W	5%	12K Ω	
R353	ERG1SJ123E	METAL	1W	5%	12K Ω	
R366	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680 Ω	

Cct Ref	Parts Number	Description				
R367	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680 Ω	
R368	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680 Ω	
R369	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω	
R370	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω	
R371	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω	
R375	ERDS1TJ182	CARBON	0.5W	10%	1K8 Ω	
R386	ERDS1TJ182	CARBON	0.5W	10%	1K8 Ω	
R387	ERDS1TJ182	CARBON	0.5W	10%	1K8 Ω	
R453	ERDS1TJ1R5	CARBON	0.5W	5%	1R5 Ω	
R506	ERJ6GEYJ753	S.M.CARB	0.1W	5%	75K Ω	
R508	ERJ6GEYJ753	S.M.CARB	0.1W	5%	75K Ω	
R519	ERJ6GEYJ754	S.M.CARB	0.1W	5%	750K Ω	
R522	ERJ6GEYJ394	S.M.CARB	0.1W	5%	390K Ω	
R542	ERJ6GEYJ242	S.M.CARB	0.1W	5%	2K4 Ω	
R543	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω	
R551	ERDS1TJ1R5	CARBON	0.5W	5%	1R5 Ω	
R552	ERDS1TJ1R5	CARBON	0.5W	5%	1R5 Ω	
R555	ERQ1CJP1R0	FUSIBLE	1W	5%	1 Ω	⚠
R557	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω	
R560	ERDS1TJ304	CARBON	0.5W	5%	300K Ω	
R807	ERG2ANJP101H	METAL	2W	5%	100 Ω	
R1215	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R1216	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R1217	ERJ6ENF1202	S.M.CARB	0.1W	1%	1K2 Ω	
R1218	ERO50PKF6203	METAL	0.5W	1%	620K Ω	⚠
R1230	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω	
R1242	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R1251	ERJ6GEYJ513	S.M.CARB	0.1W	5%	51K Ω	
R1252	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω	
R1253	ERJ6GEYJ393	S.M.CARB	0.1W	5%	39K Ω	
R1275	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R1291	ERJ6GEYJ432	S.M.CARB	0.1W	5%	4K3 Ω	
R1304	ERJ6GEYJ154	S.M.CARB	0.1W	5%	150K Ω	
R1305	ERJ6GEYJ393	S.M.CARB	0.1W	5%	39K Ω	
CAPACITORS						
C255	B32529-C224	FILM	50V		220nF	
C351	ECUV1H151JCX	S.M. CAP	50V		150pF	
C352	ECUV1H151JCX	S.M. CAP	50V		150pF	
C353	ECUV1H181JCX	S.M. CAP	50V		180pF	
C453	ECA1HM101B	ELECT	50V		100µF	
C454	ECA1HM2R2B	ELECT	50V		2.2µF	
C550	ECA1VM471GB	ELECT	35V		470µF	
C551	ECWH12H822J	FILM	1250V		8.2nF	
C552	ECQE6104K	FILM	600V		100nF	⚠
C554	ECKW3D471JBN	CERAMIC	2kV		470pF	
C557	ECWF2H474J	FILM	500V		470nF	⚠
C558	ECEA2CG010	ELECT	160V		1µF	
C563	ECA1VM471GB	ELECT	35V		470µF	
C565	ECA1CM471B	ELECT	16V		470µF	
C567	ECA1VM471GB	ELECT	35V		470µF	
C802	ECQE2A474MWB	FILM	250V		470nF	⚠
C811	ECA1JM100GB	ELECT	63V		10µF	
C813	ECQE2A224MWB	FILM	250V		220nF	⚠
C1228	ECUV1H560GCG	S.M. CAP	50V		56pF	
C1268	ECEA1HU101	ELECT	50V		100µF	

DIFFERENCES FOR MODEL TC--21JR1F

EXPLODED VIEW

3	TBX8E072	5-KEY BUTTON	
4	ZTUZAE450A	ANODE LEAD	⚠
5	TKU8E00490	BACK COVER	⚠
6	UR51CS946-2	BATTERY COVER (REMOTE)	
7	A51EAL135X13	C.R.T.	⚠
8	TKY8E420	CABINET	

Cct Ref	Parts Number	Description				
9	TMZ8E002	CHASSIS RAIL LEFT				
10	TMZ8E001	CHASSIS RAIL RIGHT				
11	VP15005-35	CRT FIXING SCREW				
12	TLK8E05143	DEGAUSS COIL				⚠
13	TNP8EE007EF	E P.C.B.				⚠
14	ZTFM23002A	F.B.T.				⚠
15	TXAJTF01BZAG	FOCUS LEAD ASSY				⚠
16	TBM8E2064	MODEL LABEL				
17	TBM8E1928	PANASONIC BADGE				
18	TBX8E071	POWER BUTTON				
19	EUR511380	REMOTE CONTROL				
20	EASG12D552A2	SPEAKER				
21	TNP8EY011AH	Y P.C.B.				⚠
MISCELLANEOUS COMPONENTS						
0	TKP8E1291	LIGHT TUBE				
0	TKP8E1292	IR WINDOW				
0	TPC8E4864	OUTER CARTON				
0	TPD8E697	TOP CUSHION				
0	TPD8E698	BOTTOM CUSHION				
0	UM-3DJ-2P	BATTERY PACK				
D805	232266296706	THERMISTOR				⚠
S351	TJSC00300	CRT SOCKET				⚠
INSTRUCTION BOOKS						
0	TQB8E3005D	FRENCH				⚠
0	TQB8E3005E	SPANISH				⚠
I.C.s						
IC1201	SDA5222V23	MICRO PROCESSOR				
IC1205	XSI1-1NFZ	EAROM				
DIODES						
D1228	1SS355TE-17	DIODE				
TRANSISTORS						
Q351	2SC5147/D-M1	TRANSISTOR				
Q352	2SC5147/D-M1	TRANSISTOR				
Q353	2SC5147/D-M1	TRANSISTOR				
Q507	BC847B	TRANSISTOR				
TRANSFORMERS						
T801	ETS29AK227AC	TRANSFORMER				⚠
COILS						
L551	ELH5L4104	COIL				
L553	ELH16F713	COIL				
RESISTORS						
C1230	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
C1245	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R252	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω	
R254	ERJ6GEYJ121	S.M.CARB	0.1W	5%	120 Ω	
R255	ERJ6GEYJ181	S.M.CARB	0.1W	5%	180 Ω	
R351	ERG2ANJP103H	METAL	2W	5%	10K Ω	
R352	ERG2ANJP103H	METAL	2W	5%	10K Ω	
R353	ERG2ANJP103H	METAL	2W	5%	10K Ω	
R366	ERJ6GEYJ431	S.M.CARB	0.1W	5%	430 Ω	
R367	ERJ6GEYJ431	S.M.CARB	0.1W	5%	430 Ω	
R368	ERJ6GEYJ431	S.M.CARB	0.1W	5%	430 Ω	
R369	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω	
R370	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω	
R371	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω	
R375	ERDS1TJ272	CARBON	0.5W	5%	2K7 Ω	
R378	ERD25TJ274	CARBON	0.25W	5%	270K Ω	
R379	ERJ6GEYJ183	S.M.CARB	0.1W	5%	18K Ω	
R380	ERJ6GEYJ684	S.M.CARB	0.1W	5%	680K Ω	
R386	ERDS1TJ272	CARBON	0.5W	5%	2K7 Ω	
R387	ERDS1TJ272	CARBON	0.5W	5%	2K7 Ω	
R453	ERDS1TJ1R0	CARBON	0.5W	5%	1 Ω	
R506	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15K Ω	

Cct Ref	Parts Number	Description				
R508	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15K Ω	
R519	ERJ6GEYJ823	S.M.CARB	0.1W	5%	82K Ω	
R522	ERJ6GEYJ684	S.M.CARB	0.1W	5%	680K Ω	
R523	ERJ6GEYJ154	S.M.CARB	0.1W	5%	150K Ω	
R524	ERJ6GEYJ184	S.M.CARB	0.1W	5%	180K Ω	
R525	ERJ6GEYJ184	S.M.CARB	0.1W	5%	180K Ω	
R542	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3 Ω	
R543	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω	
R553	ERQ1CJP102	FUSIBLE	1W	5%	1K Ω	⚠
R555	ERQ1CJP4R7	FUSIBLE	1W	5%	4R7 Ω	⚠
R557	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω	
R560	ERDS1TJ244T	CARBON	0.5W	5%	240K Ω	
R807	ERG3FJ101	METAL	3W	5%	100 Ω	⚠
R1215	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R1216	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R1217	ERJ6ENF7501	S.M.CARB	0.1W	1%	7K5 Ω	
R1218	ERO50PKF5603	METAL	0.5W	1%	560K Ω	⚠
R1230	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω	
R1242	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R1251	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R1252	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω	
R1253	ERJ6GEYJ393	S.M.CARB	0.1W	5%	39K Ω	
R1275	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R1291	ERJ6GEYJ432	S.M.CARB	0.1W	5%	4K3 Ω	
R1304	ERJ6GEYJ184	S.M.CARB	0.1W	5%	180K Ω	
R1305	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω	
CAPACITORS						
C255	ECQV1H104JL3	FILM	50V		0.1µF	
C351	ECUV1H221JCX	S.M. CAP	50V		220pF	
C352	ECUV1H271JCX	S.M. CAP	50V		270pF	
C353	ECUV1H221JCX	S.M. CAP	50V		220pF	
C369	ECA1HMR47B	ELECT	50V		470nF	
C453	ECA1HHG101B	ELECT	50V		100µF	
C454	ECA1HHG2R2B	ELECT	50V		100µF	
C508	ECUV1H102JCX	S.M. CAP	50V		1nF	
C550	ECA1CM471B	ELECT	16V		470µF	
C551	ECWH12H103JR	FILM	1250V		10nF	⚠
C552	ECQF4273JZH	FILM	400V		27nF	⚠
C555	ECKW3D152JBN	CERAMIC	2kV		1.5nF	
C557	ECWF2H394JZ	FILM	500V		390nF	⚠
C558	ECA2CM4R7B	ELECT	160V		390nF	
C563	ECA1CM471B	ELECT	16V		470µF	
C565	ECA1VM471GB	ELECT	35V		470µF	
C567	ECA1VHG471B	ELECT	35V		47µF	
C802	222233591028	FILM	250V		28nF	⚠
C811	ECA1JHG100B	ELECT	6.3V		100µF	
C1228	ECUV1H470GCG	S.M. CAP	50V		47pF	
C1268	ECEA1HU101	ELECT	50V		100µF	

DIFFERENCES FOR MODEL TX--14JT1F

EXPLODED VIEW

3	TBX8E077	5-KEY BUTTON	
4	ZTUZAE350B	ANODE LEAD	⚠
5	TKU8E00510	BACK COVER	⚠
6	UR51EC924	BATTERY COVER (REMOTE)	
7	A34FAC01X13	C R T	⚠
8	TKY8E440	CABINET	
11	THE492-4	CRT FIXING SCREW	
12	TLK8E05134	DEGAUSS COIL	⚠
13	TNP8EE007EG	E P.C.B.	⚠
14	ZTFM23001A	F.B.T.	⚠
15	TXFJTF01BTDG	FOCUS LEAD ASSY	⚠
16	TBM8E2075	MODEL LABEL	
17	TBM8E1927	PANASONIC BADGE	
18	TBX8E076	POWER BUTTON	
19	EUR511300	REMOTE CONTROL	
20	EASG9D556A2	SPEAKER	
21	TNP8EY011AJ	Y P.C.B.	⚠

MISCELLANEOUS COMPONENTS

	TKP8E1315	IR WINDOW	
	TPC8E4861	OUTER CARTON	
	TPD8E704	TOP CUSHION	
	TPD8E705	BOTTOM CUSHION	
	TSA120026	MONOPOLE ANTENNA	
	UM-3DJ-2P	BATTERY PACK	
D805	59122T80B110	THERMISTOR	⚠
S351	330660069	CRT SOCKET	⚠

INSTRUCTION BOOKS

	TQB8E3003A	GERMAN	⚠
	TQB8E3003C	ITALIAN	⚠
	TQB8E3003D	FRENCH	⚠
	TQB8E3003E	SPANISH	⚠

I.C.s

IC1201	SDA5254V32	MICRO PROCESSOR
IC1205	X24SI1-1MFZ	EAROM

DIODES

D1225	1SS133T-77	DIODE

TRANSISTORS

Q351	TYMQ0003	TRANSISTOR
Q352	TYMQ0003	TRANSISTOR
Q353	TYMQ0003	TRANSISTOR
Q1214	BC857B	TRANSISTOR
Q1215	BC857B	TRANSISTOR
Q1216	BC847B	TRANSISTOR

TRANSFORMERS

T801	ETS29AK237AC	TRANSFORMER	⚠

COILS

L1206	EXCELSA35T	COIL

FILTERS

L802	ELF15N005A	LINE FILTER

RESISTORS

JC24	ERJ8GEY0R00	S.M.CARB	.125W	5%	0 Ω
JYA	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R252	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R254	ERJ6GEYJ560	S.M.CARB	0.1W	5%	56 Ω
R255	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270 Ω
R351	ERG1SJ123E	METAL	1W	5%	12K Ω
R352	ERG1SJ123E	METAL	1W	5%	12K Ω
R353	ERG1SJ123E	METAL	1W	5%	12K Ω
R366	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680 Ω
R367	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680 Ω
R368	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680 Ω
R369	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω
R370	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω
R371	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω
R375	ERDS1TJ182	CARBON	0.5W	10%	1K8 Ω
R386	ERDS1TJ182	CARBON	0.5W	10%	1K8 Ω
R387	ERDS1TJ182	CARBON	0.5W	10%	1K8 Ω
R453	ERDS1TJ1R5	CARBON	0.5W	5%	1R5 Ω
R506	ERJ6GEYJ753	S.M.CARB	0.1W	5%	75K Ω
R508	ERJ6GEYJ753	S.M.CARB	0.1W	5%	75K Ω
R519	ERJ6GEYJ754	S.M.CARB	0.1W	5%	750K Ω
R522	ERJ6GEYJ394	S.M.CARB	0.1W	5%	390K Ω
R542	ERJ6GEYJ242	S.M.CARB	0.1W	5%	2K4 Ω
R543	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω
R551	ERDS1TJ1R5	CARBON	0.5W	5%	1R5 Ω
R552	ERDS1TJ1R5	CARBON	0.5W	5%	1R5 Ω

Cct Ref	Parts Number	Description				
R555	ERQ1CJP1R0	FUSIBLE	1W	5%	1 Ω	⚠
R557	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω	
R560	ERDS1TJ304	CARBON	0.5W	5%	300K Ω	
R807	ERG2ANJP101H	METAL	2W	5%	100 Ω	
R1213	ERJ6GEYJ392	S.M.CARB	0.1W	5%	3K9 Ω	
R1215	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω	
R1216	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω	
R1217	ERJ6ENF1202	S.M.CARB	0.1W	1%	1K2 Ω	
R1218	ERO50PKF6203	METAL	0.5W	1%	620K Ω	⚠
R1230	ERJ6GEYJ823	S.M.CARB	0.1W	5%	82K Ω	
R1241	ERJ6GEYJ822	S.M.CARB	0.1W	5%	8K2 Ω	
R1242	ERJ6GEYJ434	S.M.CARB	0.1W	5%	43K Ω	
R1251	ERJ6GEYJ513	S.M.CARB	0.1W	5%	51K Ω	
R1252	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω	
R1253	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω	
R1256	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2 Ω	
R1275	ERJ6GEYJ225	S.M.CARB	0.1W	5%	2M2 Ω	
R1277	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω	
R1278	ERJ6GEYJ182	S.M.CARB	0.1W	5%	1K8 Ω	
R1290	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω	
R1291	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω	
R1292	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω	
R1304	ERJ6GEYJ154	S.M.CARB	0.1W	5%	150K Ω	
R1305	ERJ6GEYJ393	S.M.CARB	0.1W	5%	39K Ω	
R1306	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R1307	ERJ6GEYJ182	S.M.CARB	0.1W	5%	1K8 Ω	
CAPACITORS						
C255	B32529-C224	FILM	50V		220nF	
C351	ECUV1H151JCX	S.M. CAP	50V		150pF	
C352	ECUV1H151JCX	S.M. CAP	50V		150pF	
C353	ECUV1H181JCX	S.M. CAP	50V		180pF	
C453	ECA1HM101B	ELECT	50V		100µF	
C454	ECA1HM2R2B	ELECT	50V		2.2µF	
C550	ECA1VM471GB	ELECT	35V		470µF	
C551	ECWH12H822J	FILM	1250V		8.2nF	
C552	ECQE6104K	FILM	600V		100nF	⚠
C554	ECKW3D471JBN	CERAMIC	2kV		470pF	
C557	ECWF2H474J	FILM	500V		470nF	⚠
C558	ECEA2CG010	ELECT	160V		1µF	
C563	ECA1VM471GB	ELECT	35V		470µF	
C565	ECA1CM471B	ELECT	16V		470µF	
C567	ECA1VM471GB	ELECT	35V		470µF	
C802	ECQE2A474MWB	FILM	250V		470nF	⚠
C811	ECA1JM100GB	ELECT	63V		10µF	
C813	ECQE2A224MWB	FILM	250V		220nF	⚠
C1228	ECUV1H560GCG	S.M. CAP	50V		56pF	
C1230	ECJ2VB1H333K	ELECT	350V		33nF	
C1231	222236516154	FILM	160V		150nF	
C1242	ECUV1H120JCX	S.M. CAP	50V		12pF	
C1245	ECJ2VB1H333K	ELECT	350V		33nF	
C1250	ECUV1H151JCX	S.M. CAP	50V		150pF	
C1251	ECQV1H104JL3	FILM	50V		0.1µF	
C1268	ECA1CM220GB	ELECT	16V		22µF	
C1269	ECUV1H181JCX	S.M. CAP	50V		180pF	

DIFFERENCES FOR MODEL TX--21JT1F

EXPLODED VIEW

3	TBX8E072	5-KEY BUTTON	
4	ZTUZAE450A	ANODE LEAD	⚠
5	TKU8E00490	BACK COVER	⚠
6	UR51EC924	BATTERY COVER (REMOTE)	
7	A51EAL135X13	C.R.T.	⚠
8	TKY8E420	CABINET	
9	TMZ8E002	CHASSIS RAIL LEFT	
10	TMZ8E001	CHASSIS RAIL RIGHT	
11	VP15005-35	CRT FIXING SCREW	
12	TLK8E05143	DEGAUSS COIL	⚠
13	TNP8EE007DS	E P.C.B.	⚠
14	ZTFM23002A	F.B.T.	⚠
15	TXAJTF01BZAG	FOCUS LEAD ASSY	⚠
16	TBM8E2065	MODEL LABEL	
17	TBM8E1928	PANASONIC BADGE	
18	TBX8E071	POWER BUTTON	
19	EUR511300	REMOTE CONTROL	
20	EASG12D552A2	SPEAKER	
21	TNP8EY011AH	Y P.C.B.	⚠

MISCELLANEOUS COMPONENTS

0	TKP8E1291	LIGHT TUBE	
0	TKP8E1292	IR WINDOW	
0	TPC8E4860	OUTER CARTON	
0	TPD8E697	TOP CUSHION	
0	TPD8E698	BOTTOM CUSHION	
0	UM-3DJ-2P	BATTERY PACK	
D805	232266296706	THERMISTOR	⚠
S351	TJSC00300	CRT SOCKET	⚠

INSTRUCTION BOOKS

0	TQB8E3003A	GERMAN	⚠
0	TQB8E3003B	DUTCH	⚠
0	TQB8E3003C	ITALIAN	⚠
0	TQB8E3003D	FRENCH	⚠
0	TQB8E3003E	SPANISH	⚠

I.C.s

IC1201	SDA5254V32	MICRO PROCESSOR	
IC1205	XSI1-1NFZ	EAROM	

DIODES

D1225	1SS133T-77	DIODE	

TRANSISTORS

Q351	2SC5147/D-M1	TRANSISTOR	
Q352	2SC5147/D-M1	TRANSISTOR	
Q353	2SC5147/D-M1	TRANSISTOR	
Q507	BC847B	TRANSISTOR	
Q1214	BC857B	TRANSISTOR	
Q1215	BC857B	TRANSISTOR	
Q1216	BC847B	TRANSISTOR	

TRANSFORMERS

T801	ETS29AK227AC	TRANSFORMER	⚠

COILS

L551	ELH5L4104	COIL	
L553	ELH16F713	COIL	
L1206	EXCELSA35T	COIL	

RESISTORS

JC24	ERJ8GEY0R00	S.M.CARB	.125W	5%	0 Ω
R252	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R254	ERJ6GEYJ121	S.M.CARB	0.1W	5%	120 Ω
R255	ERJ6GEYJ181	S.M.CARB	0.1W	5%	180 Ω
R351	ERG2ANJP103H	METAL	2W	5%	10K Ω
R352	ERG2ANJP103H	METAL	2W	5%	10K Ω
R353	ERG2ANJP103H	METAL	2W	5%	10K Ω
R366	ERJ6GEYJ431	S.M.CARB	0.1W	5%	430 Ω
R367	ERJ6GEYJ431	S.M.CARB	0.1W	5%	430 Ω
R368	ERJ6GEYJ431	S.M.CARB	0.1W	5%	430 Ω
R369	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R370	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R371	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R375	ERDS1TJ272	CARBON	0.5W	5%	2K7 Ω
R378	ERD25TJ274	CARBON	0.25W	5%	270K Ω
R379	ERJ6GEYJ183	S.M.CARB	0.1W	5%	18K Ω

Cct Ref	Parts Number	Description				
R380	ERJ6GEYJ684	S.M.CARB	0.1W	5%	680K Ω	
R386	ERDS1TJ272	CARBON	0.5W	5%	2K7 Ω	
R387	ERDS1TJ272	CARBON	0.5W	5%	2K7 Ω	
R453	ERDS1TJ1R0	CARBON	0.5W	5%	1 Ω	
R506	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15K Ω	
R508	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15K Ω	
R519	ERJ6GEYJ823	S.M.CARB	0.1W	5%	82K Ω	
R522	ERJ6GEYJ684	S.M.CARB	0.1W	5%	680K Ω	
R523	ERJ6GEYJ154	S.M.CARB	0.1W	5%	150K Ω	
R524	ERJ6GEYJ184	S.M.CARB	0.1W	5%	180K Ω	
R525	ERJ6GEYJ184	S.M.CARB	0.1W	5%	180K Ω	
R542	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3 Ω	
R543	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω	
R553	ERQ1CJP102	FUSIBLE	1W	5%	1K Ω	⚠
R555	ERQ1CJP4R7	FUSIBLE	1W	5%	4R7 Ω	⚠
R557	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω	
R559	ERQ1CJP4R7	FUSIBLE	1W	5%	4R7 Ω	⚠
R560	ERDS1TJ244T	CARBON	0.5W	5%	240K Ω	
R807	ERG3FJ101	METAL	3W	5%	100 Ω	⚠
R1213	ERJ6GEYJ392	S.M.CARB	0.1W	5%	3K9 Ω	
R1215	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω	
R1216	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω	
R1217	ERJ6ENF7501	S.M.CARB	0.1W	1%	7K5 Ω	
R1218	ERO50PKF5603	METAL	0.5W	1%	560K Ω	⚠
R1230	ERJ6GEYJ823	S.M.CARB	0.1W	5%	82K Ω	
R1241	ERJ6GEYJ822	S.M.CARB	0.1W	5%	8K2 Ω	
R1242	ERJ6GEYJ434	S.M.CARB	0.1W	5%	43K Ω	
R1251	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R1252	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω	
R1253	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω	
R1256	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2 Ω	
R1275	ERJ6GEYJ225	S.M.CARB	0.1W	5%	2M2 Ω	
R1277	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω	
R1278	ERJ6GEYJ182	S.M.CARB	0.1W	5%	1K8 Ω	
R1290	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω	
R1291	ERJ6GEYJ752	S.M.CARB	0.1W	5%	7K5 Ω	
R1292	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω	
R1304	ERJ6GEYJ184	S.M.CARB	0.1W	5%	180K Ω	
R1305	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω	
R1306	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R1307	ERJ6GEYJ182	S.M.CARB	0.1W	5%	1K8 Ω	
CAPACITORS						
C255	ECQV1H104JL3	FILM	50V		0.1µF	
C351	ECUV1H221JCX	S.M. CAP	50V		220pF	
C352	ECUV1H271JCX	S.M. CAP	50V		270pF	
C353	ECUV1H221JCX	S.M. CAP	50V		220pF	
C369	ECA1HMR47B	ELECT	50V		470nF	
C453	ECA1HHG101B	ELECT	50V		100µF	
C454	ECA1HHG2R2B	ELECT	50V		100µF	
C508	ECUV1H102JCX	S.M. CAP	50V		1nF	
C550	ECA1CM471B	ELECT	16V		470µF	
C551	ECWH12H103JR	FILM	1250V		10nF	⚠
C552	ECQF4273JZH	FILM	400V		27nF	⚠
C555	ECKW3D152JBN	CERAMIC	2kV		1.5nF	
C557	ECWF2H394JZ	FILM	500V		390nF	⚠
C558	ECA2CM4R7B	ELECT	160V		390nF	
C563	ECA1CM471B	ELECT	16V		470µF	
C565	ECA1VM471GB	ELECT	35V		470µF	
C567	ECA1VHG471B	ELECT	35V		47µF	
C802	222233591028	FILM	250V		28nF	⚠
C811	ECA1JHG100B	ELECT	6.3V		100µF	
C1228	ECUV1H470GCG	S.M. CAP	50V		47pF	
C1230	ECJ2VB1H333K	ELECT	350V		33nF	
C1231	222236516154	FILM	160V		150nF	
C1242	ECUV1H120JCX	S.M. CAP	50V		12pF	
C1245	ECJ2VB1H333K	ELECT	350V		33nF	

Cct Ref	Parts Number	Description		
C1250	ECUV1H151JCX	S.M. CAP	50V	150pF
C1251	ECQV1H104JL3	FILM	50V	0.1µF
C1268	ECA1CM220GB	ELECT	16V	22µF
C1269	ECUV1H181JCX	S.M. CAP	50V	180pF

NOTES ANMERKUNG

SCHEMATIC DIAGRAMS FOR MODELS TX-21JT1F,TC-21JR1F, TX-14JT1F,TC-14JR1F (Z7 CHASSIS)

IMPORTANT SAFETY NOTICE

Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

NOTES

1. RESISTOR
   All resistors are carbon ¼W resistor, unless marked otherwise.
   Unit of resistance is OHM (Ω) (k=1,000, M=1,000,000)
2. CAPACITORS
   All capacitors are ceramic 50V unless marked otherwise.
   Unit of capacitance is μF unless otherwise stated.
3. COIL
   Unit of inductance is μH, unless otherwise stated.
4. Components marked "L" on the schematic diagram shows leadless parts.
5. TEST POINT

   Test Point Position
6. EARTH SYMBOL

   Chassis Earth (Cold) Line Earth (Hot)
7. VOLTAGE MEASUREMENT
   Voltage is measured by a d.c. voltmeter.
   Measurement conditions are as follows:

Power source	a.c. 220V-240V, 50Hz
Receiving Signal	Colour Bar signal (RF)
All customer controls	Maximum position

8. Indicates the Video signal path

   Indicates the Audio signal path

These schematic diagrams are the latest at time of printing and are subject to change without notice.

REMARKS

1. The Power Supply Circuit contains a circuit area which uses a separate power supply to isolate the earth connection. The circuit is defined by HOT and COLD indications in the schematic diagram. All circuits except the Power Circuit, are COLD.
   Take the following precautions :-

a. Do not touch the hot part, or the hot and cold parts at the same time, as you are liable to a shock hazard.
b. Do not short circuit the hot and cold circuits as electrical components may be damaged.
c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simutaneously as this may cause fuse failure. Connect the earth of the instruments to the earth connection of the circuit being measured.
d. Make sure to disconnect the power plug before removing the chassis.

ZEICHENERKLÄRUNG FÜR MODELL TX-21JT1F,TC-21JR1F, TX-14JT1F,TC-14JR1F (Z7 CHASSIS)

WICHTIGER SICHERHEITSHINWEIS

Teile, die mit einen Hinweis ⚠ gekennzeichnet sind, sind wichtig für die Sicherheit, Sollte ein Auswechsein erforderlich sein, sind unbedingt Originalteile einzusetzen.

ANMERKUNG

1. WIDERSTÄNDE
   Alle ¼W Widerstände sind Kohlewiderstände, Abweichungen sind folgt gekennzeichnet.
   Die Maßeinheit ist OHM (Ω) (k=1,000, M=1,000,000)
2. KONDENSATOREN
   Alle Kondensatoren sind Keramikausführungen. Spannungsfestigkeit 50V. Abweichungen sind wie folgt gekennzeichnet. Die Maßeinheit ist μF, wenne keine anderen Bezeichnungen gennant sind.
3. SPULEN
   Die Maßeinheit ist μH, Abweichungen sind gekennzeichnet.
4. Mit "L" gekennzeichnete Teile sind ohne Anschlußdrähte.
5. TESTPUNKTE

   Kennzeichnung der Testpunktposition
6. MASSE SYMBOL

   Erdung am Chassis Erdung an Masse-Leitung
7. SPANNUNGSMESSUNG
   Spannungsmessungen sind mit einem d.c.-Voltmeter durchzuführen. Die Meßbedingungen sind folgende:

Netzspannung	a.c. 220V-240V, 50Hz
Wiedregabe Signal	Farbbalken-Testbild
Wiedergabesignal	Farbbalken-Testbild (HF)

8. Videosignalweg

   Audiosignalweg

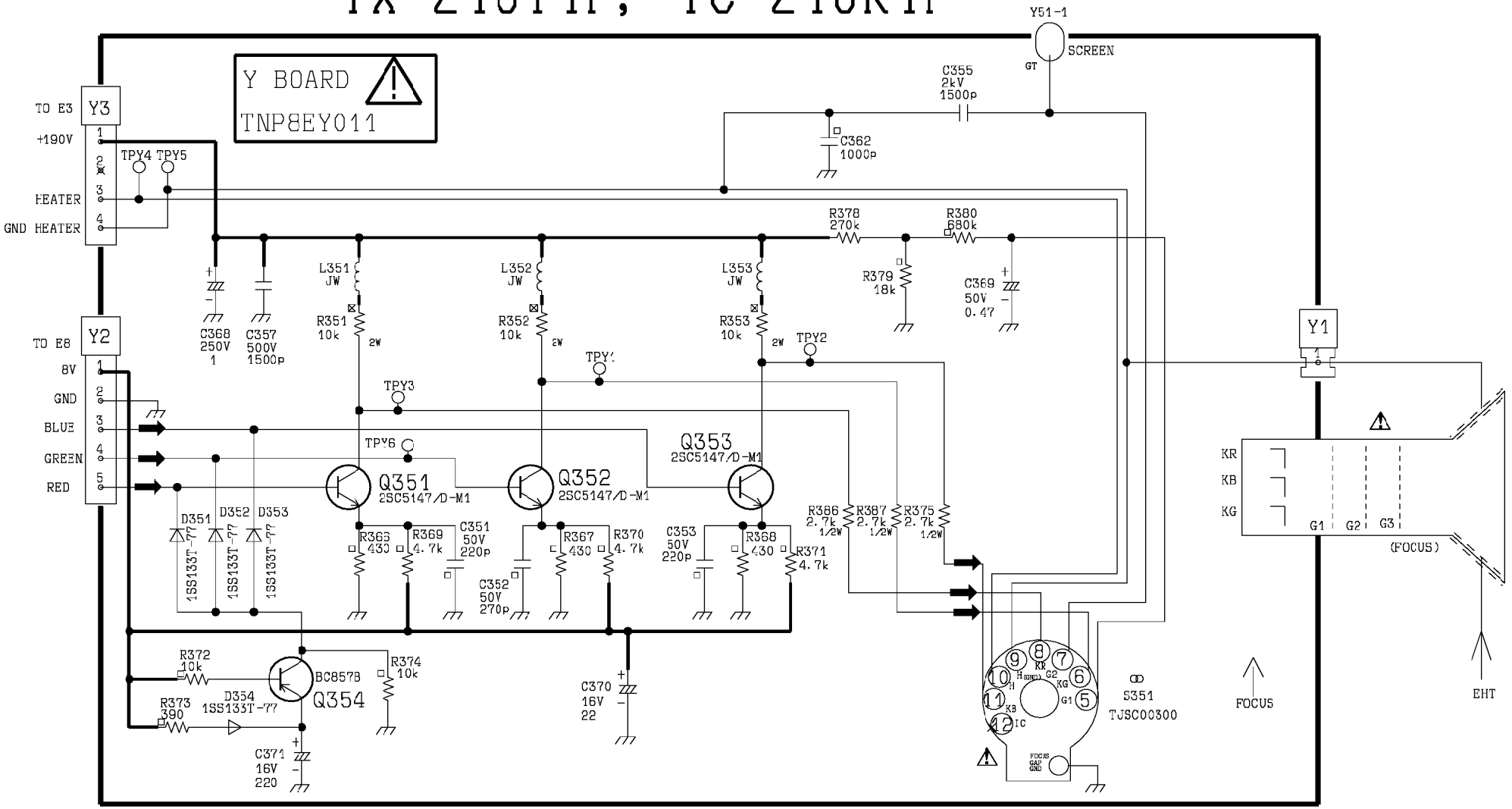
Änderungen im Laufe der Fertigung sind möglich.

BEMERKUNGEN

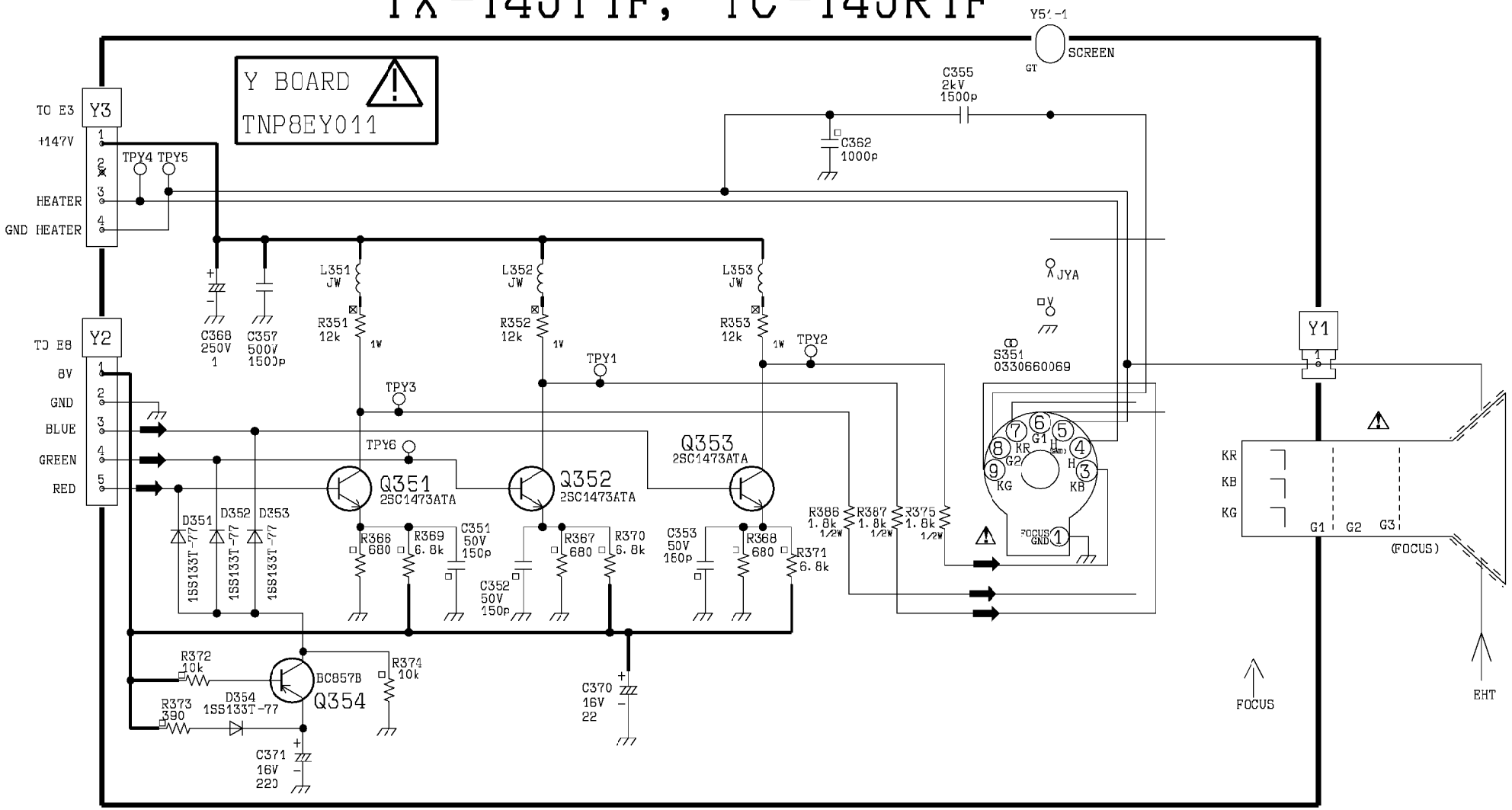
1. Das Schaltnetzteil enthält Bereiche, die direkt mit dem Netz verbunden sind. Diese Bereiche sind im Schaltplan mit HOT gekennzeichnet. Alle anderen Schaltungen sind mit COLD gekennzeichnet und haben keine direkte Verbindung mit den Netz :-

a. Weder die Leitungen im heißen noch Leitungen im heißen und im kalten Bereich gleichzeitig berühren. Es besteht die Gefahr eines elektrischen Schlages.
b. Keinesfalls die Leitungen im heißen Bereich mit denen im kalten Bereich verbinden oder kurzschliessen. Dies kann zur Zerstörung von Bauteilen oder Sicherungen führen. Außerdem ist die elektrische Betriebssicherheit des Gerätes nicht mehr gegeben.
c. Keine Messinstrumente gleichzeitig an Leitungen im heissen und kalten Bereich anschliessen. Sicherungen könnten zerstört werden. Die Erde des Messinstrumentes immer mit der des zu prüfenden Schaltkreises verbinden.
d. Vor Ausbau des Chassis, Stecker aus der Netzsteckdose ziehen.

TX-21JT1F, TC-21JR1F

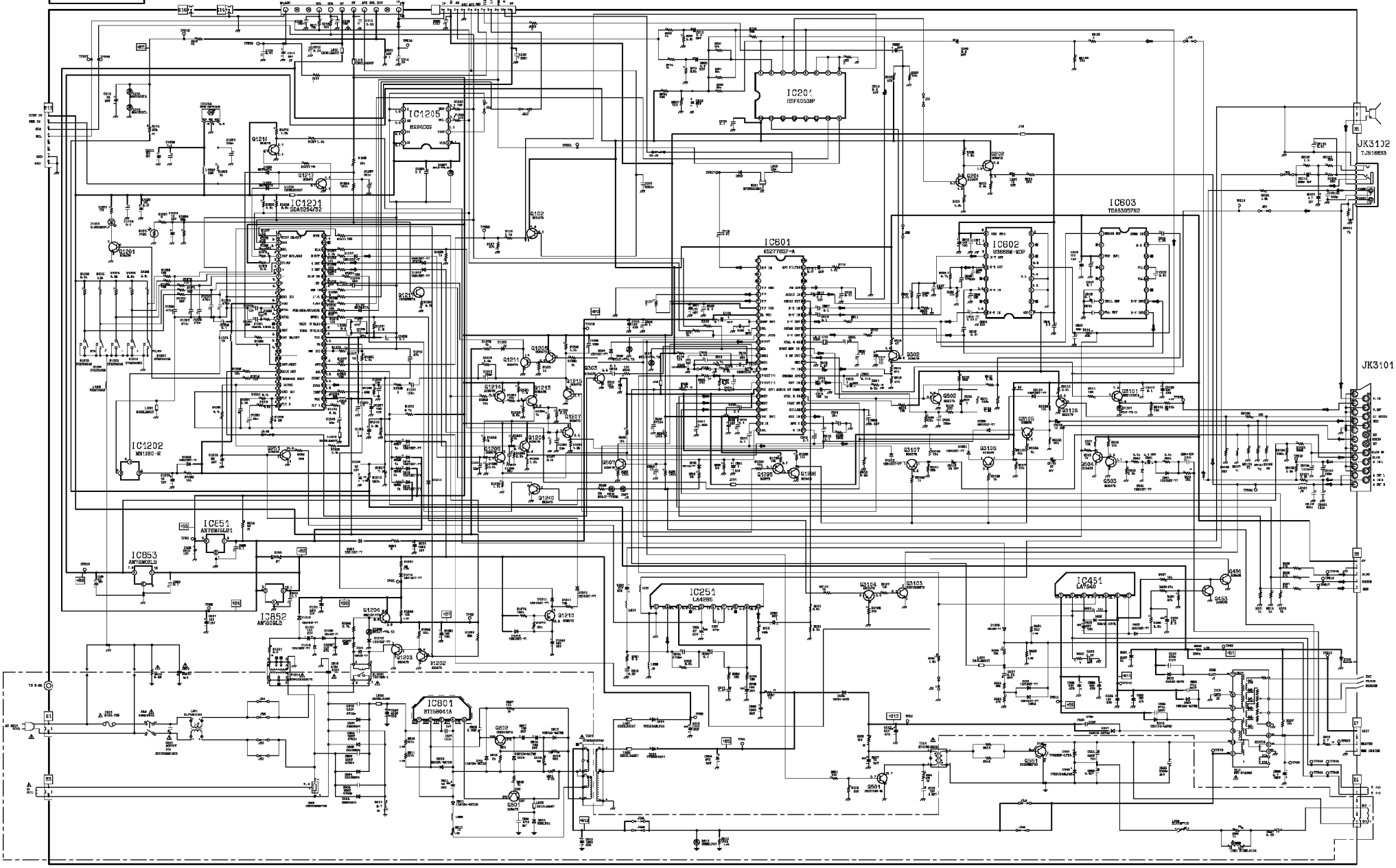


TX-14JT1F, TC-14JR1F



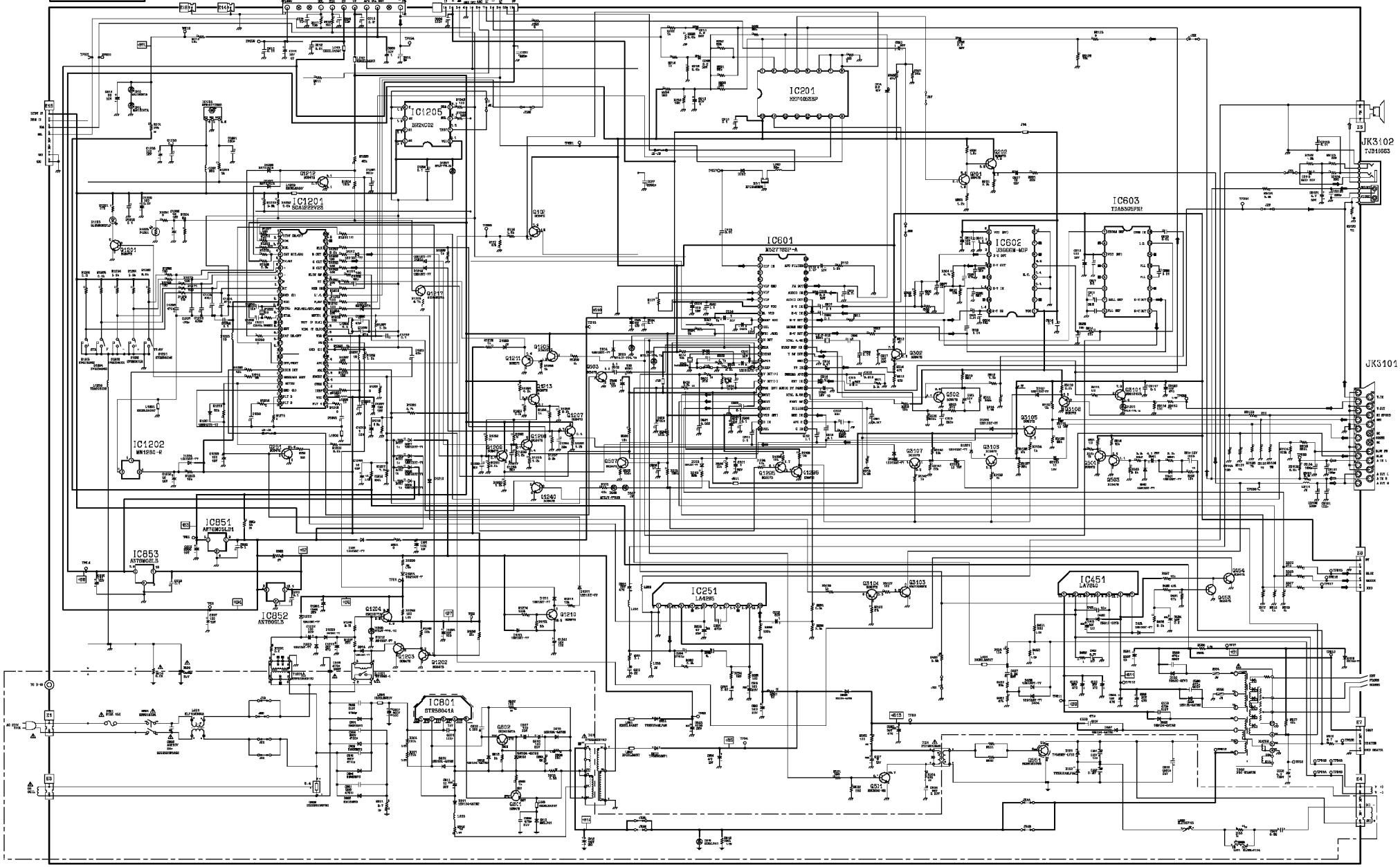
TX-21JT1F

E-BOARD
TNP8EE007



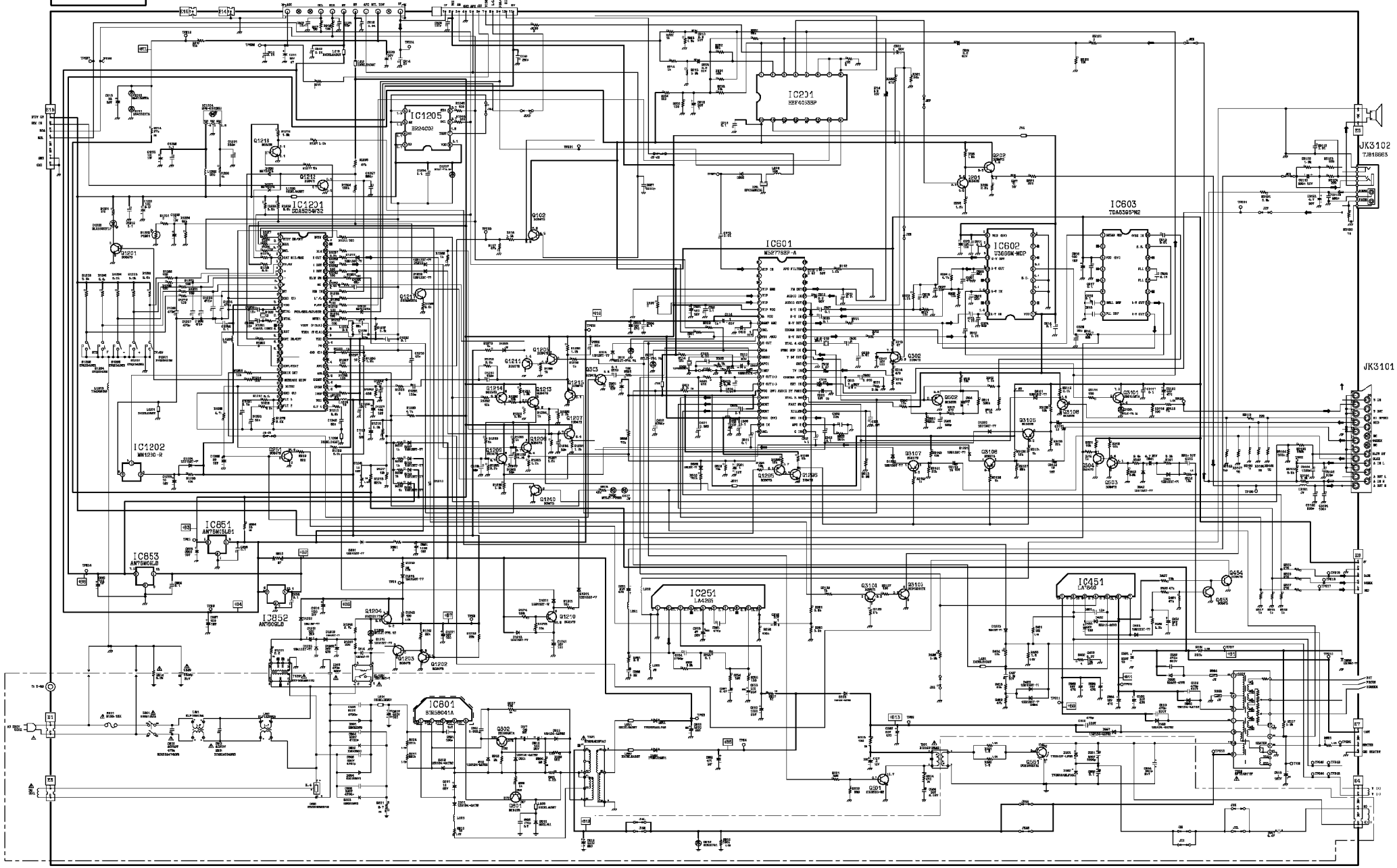
TC-21JR1F

E-BOARD
TNP5EE007



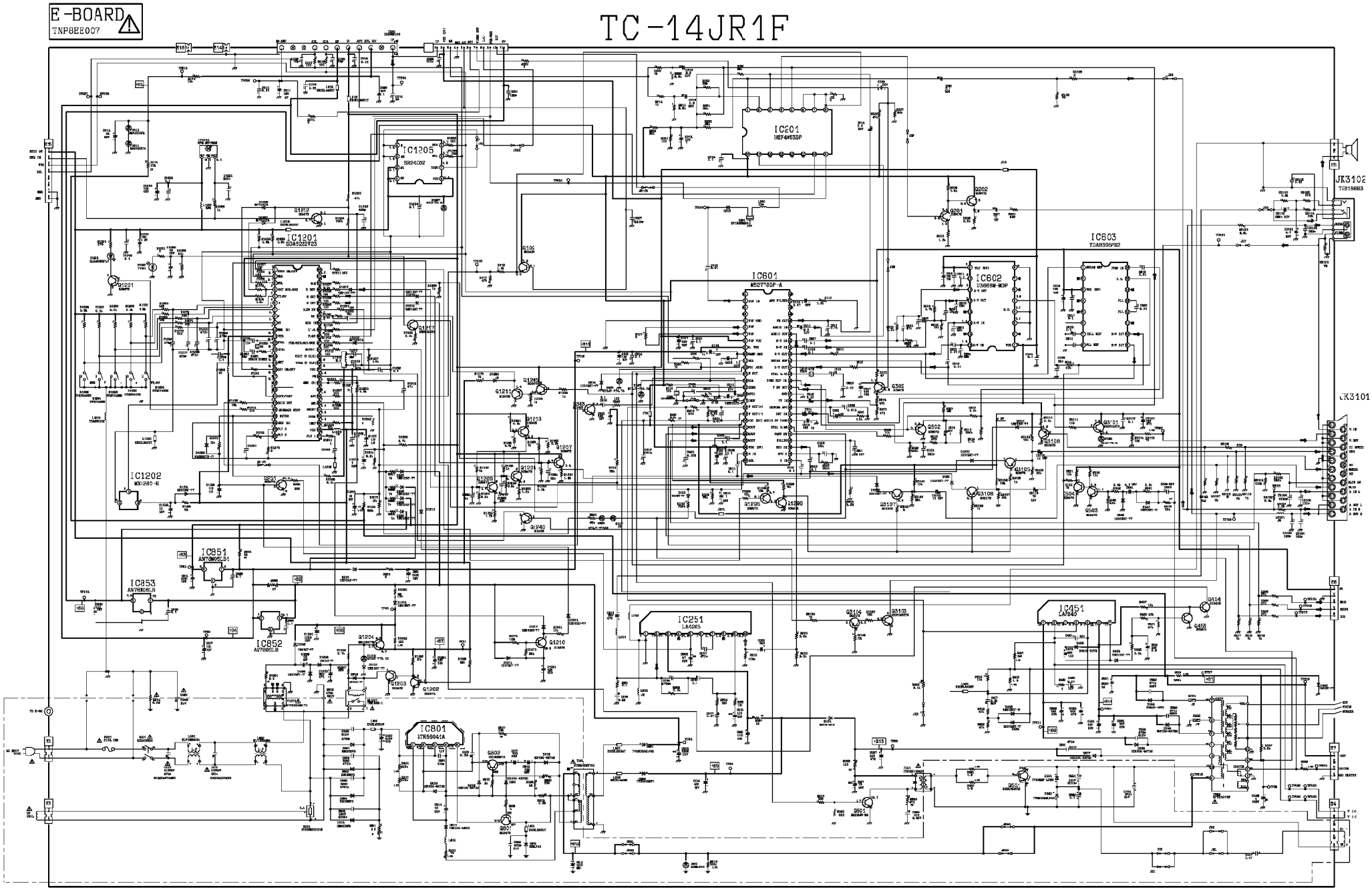
TX-14JT1F

E-BOARD
TNP8EE007



E-BOARD
TNP8EE007

TC-14JR1F



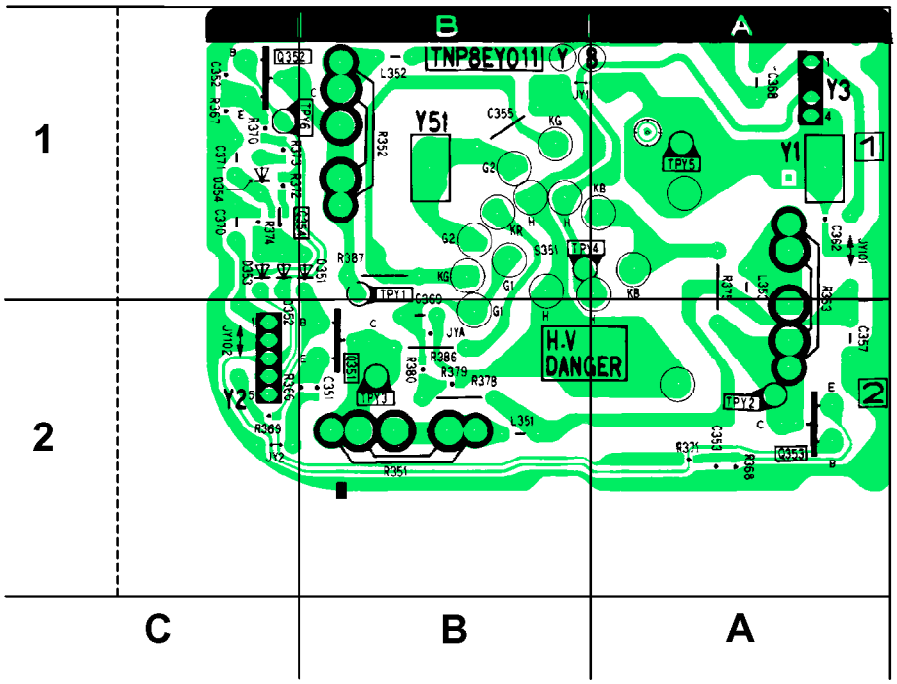
CONDUCTOR VIEWS FOR MODELS

ANSICHT DER LEITERBAHNEN FÜR MODELL

TX-21JT1F, TC-21JR1F, TX-14JT1F, TC-14JR1F

Y-BOARD TNP8EY011

TRAN´S	
Q351	B2
Q352	C1
Q353	A2
Q354	C1
DIODES	
D351	C1
D352	C1
D353	C1
D354	C1
T.P.´S	
TPY4	B2
TPY5	B1



E-BOARD TNP8EE007

	TX-21JT1F	TC-21JR1F	TX-14JT1F	TC-14JR1F
TRAN'S				
Q201 A3				
Q202 A4				
Q251 D3				
Q302 C3				
Q303 B5				
Q453 E6				
Q454 E6				
Q501 F5				
Q502 B4				
Q503 E5				
Q504 E5				
Q507 B5			NO	NO
Q551 H4				
Q801 F3				
Q802 G3				
Q1201 G1				
Q1202 E2				
Q1203 E2				
Q1204 E2				
Q1205 C3				
Q1207 C4				
Q1208 C4				
Q1209 C4				
Q1210 E3				
Q1211 C3				
Q1212 D2				
Q1213 C4				
Q1214 C4		NO		NO
Q1215 B4		NO		NO
Q1216 D2		NO		NO
Q1217 D2				
Q1240 C6				
Q1295 C5				
Q1296 D6				
Q3101 D5				
Q3103 A4				
Q3104 A4				
Q3105 C5				
Q3106 D5				
Q3107 D5				
Q3108 C6				
DIODES				
D010 E6				
D011 E6				
D202 A4				
D304 B5				
D306 B6				

	TX-21JT1F	TC-21JR1F	TX-14JT1F	TC-14JR1F
D307 B5				
D452 E6				
D453 E6				
D454 E6				
D455 E6				
D503 C5				
D504 C6				
D505 E5				
D506 C5				
D507 D5				
D541 F6				
D542 E6				
D551 H5				
D552 H4				
D553 F6				
D554 G6				
D555 F6				
D556 F6				
D557 E5				
D801 G2				
D802 G2				
D803 H2				
D804 H2				
D805 F2				
D808 G3				
D809 G3				
D810 G4				
D811 G3				
D812 G3				
D814 E2				
D815 G3				
D816 G3				
D851 E4				
D852 F4				
D857 E5				
D858 E5				
D859 E5				
D860 D5				
D861 D4				
D1202 E2				
D1205 E1				
D1207 D1				
D1208 E1				
D1209 E2				
D1210 D2				
D1211 D4				
D1212 E2				
D1213 E3				
D1214 E3				

	TX-21JT1F	TC-21JR1F	TX-14JT1F	TC-14JR1F
D1217 C4				
D1218 C4				
D1219 C4				
D1220 C5				
D1221 C5				
D1222 C5				
D1223 C3				
D1224 D2				
D1225 F5		NO		NO
D1226 D2				
D1227 D2				
D1228 C2	NO		NO	
D1301 D5				
D1311 E3				
D1312 B2				
D3101 D6				
I.C.'S				
IC201 A3				
IC251 D3				
IC451 E6				
IC601 B4				
IC602 B3				
IC603 B3				
IC801 G3				
IC851 E5				
IC852 E4				
IC853 D5				
IC1201 D2				
IC1202 D1				
IC1204 G1				
IC1205 D2				
T.P.'S				
TPE1 E2				
TPE2 E2				
TPE3 E4				
TPE4 E4				
TPE5 E5				
TPE6 E4				
TPE9 E5				
TPE10 F6				
TPE11 E6				
TPE12 F6				
TPE13 G5				
TPE14 D4				
TPE18 B5				
TPE19 A6				

E – BOARD TNP8EE007